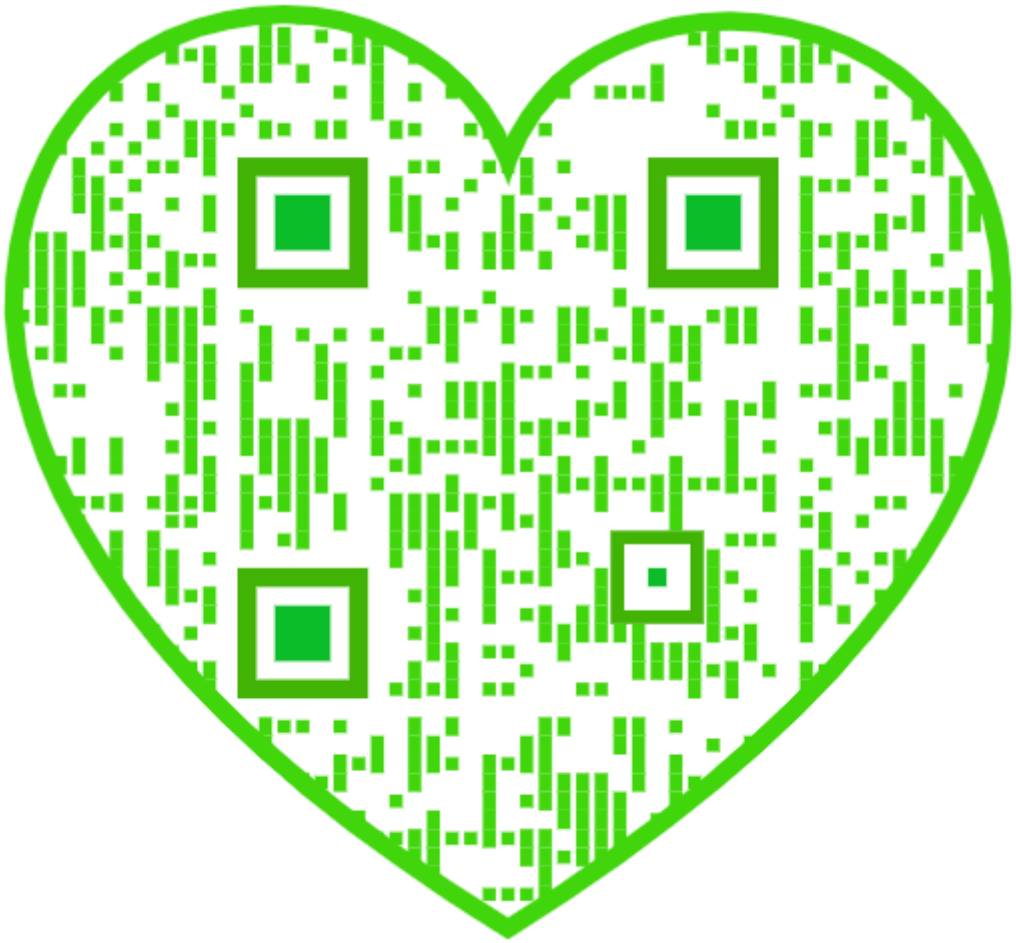

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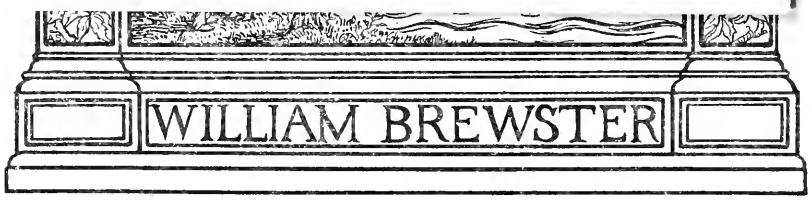

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JULY, 1902

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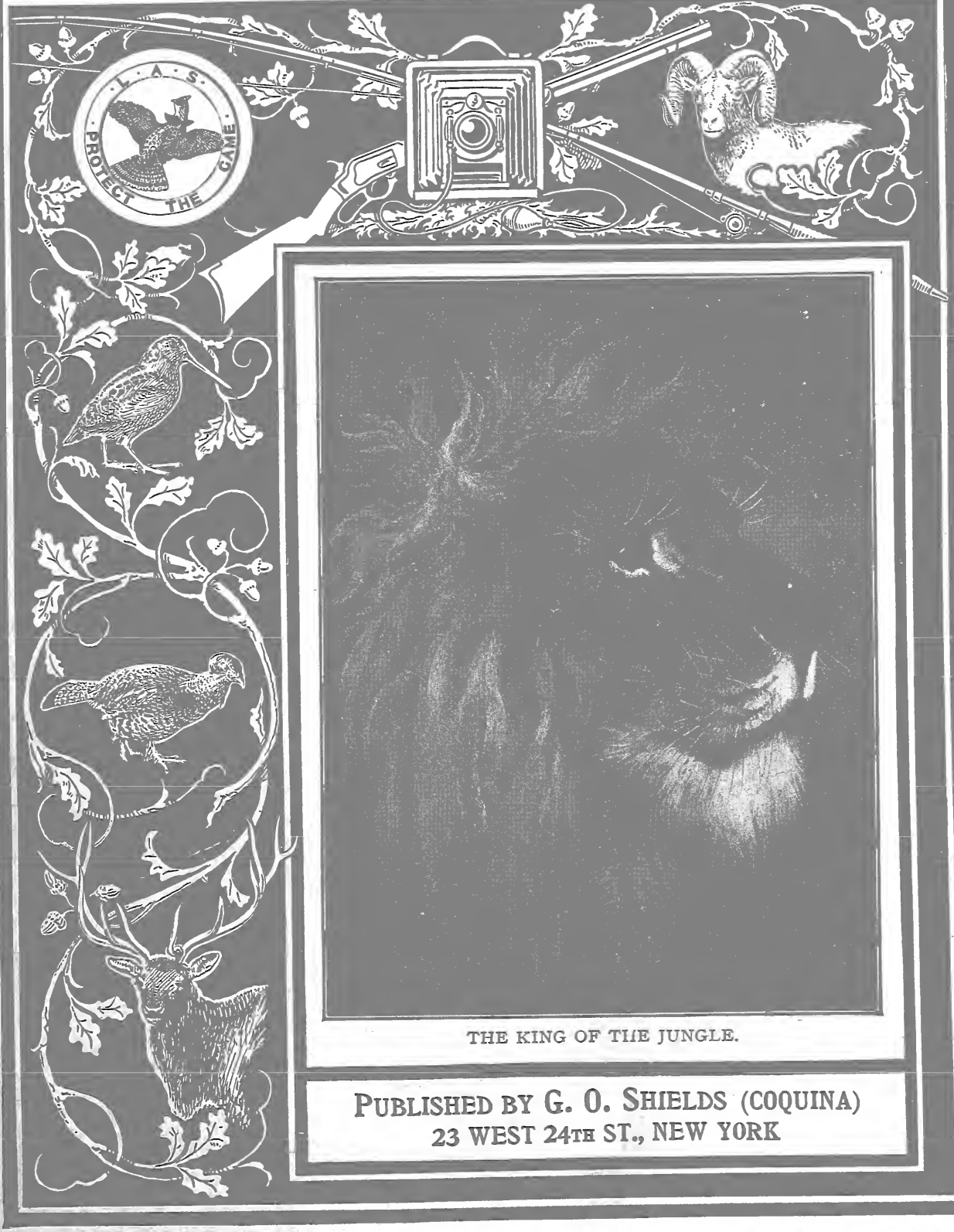


THE KING OF THE JUNGLE.

PUBLISHED BY G. O. SHIELDS (COQUINA)
23 WEST 24TH ST., NEW YORK

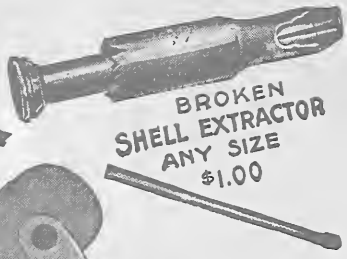
OFFICIAL ORGAN OF THE LEAGUE OF AMERICAN SPORTSMEN

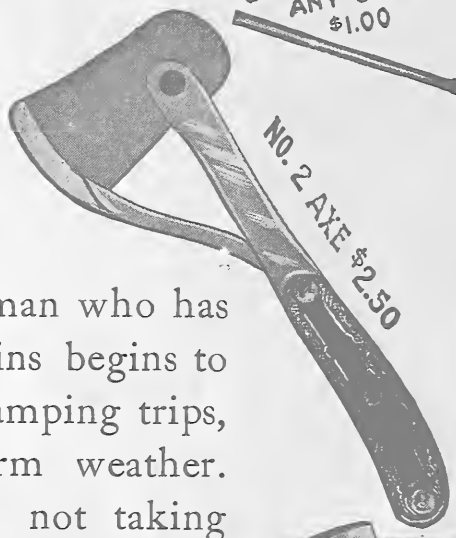
Twenty-one Grizzlies in Sight; A Story of the Selkirks, by W. H. WRIGHT.

On the Nez Perces Trail;

An Account of Two Trips in Northwestern Idaho, illustrated.
By WESTLEY JONES.

Things Sportsmen Want





ABOUT this time of year every man who has a drop of red blood in his veins begins to think of the fishing, hunting and camping trips, which he will make during warm weather.

If there's anything worse than not taking such an outing, it's taking the outing without the right kind of equipment.

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RECREATION

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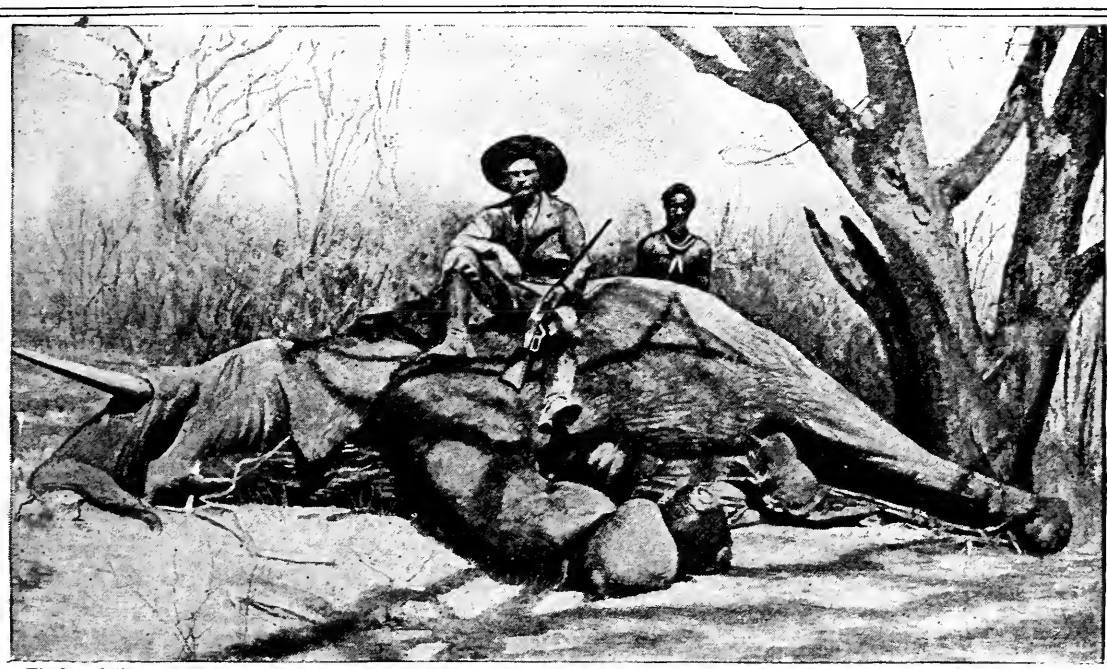

Elephant killed by Mr. Marcel Hendricks of Mossamedes, Africa, with a .303 Savage Rifle using the Expanding Bullet. "Le Sport Universel Illustre" contains an article with illustrations by Mr. Hendricks relative to the killing of the above.

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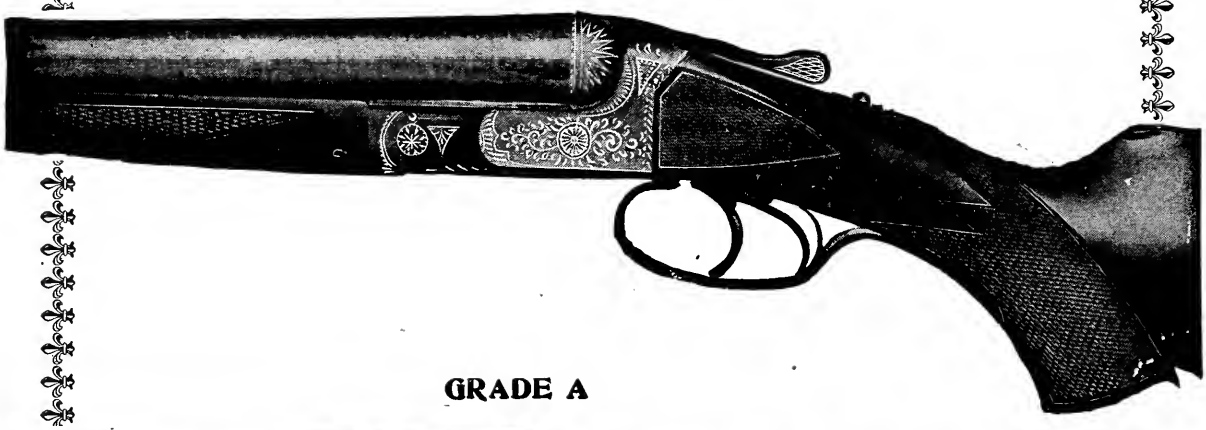

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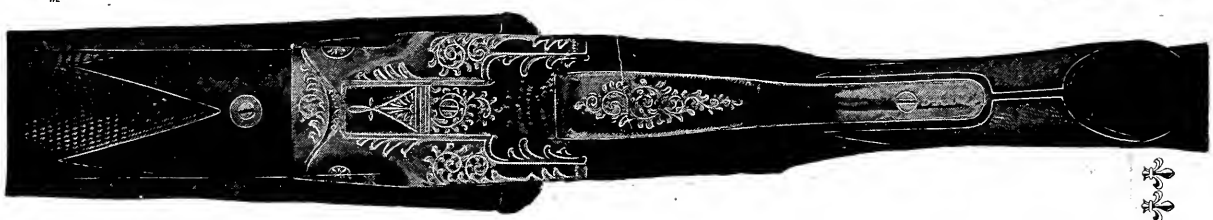

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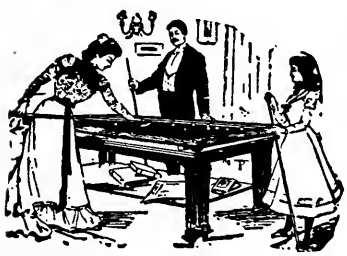

RODS AND REELS. No house in this country can offer to the public a greater assortment of Rods, Reels and supplies. It is said there are two thousand articles in Fishing Supplies and it seems to us correct when we come to purchase the line. If we have omitted one article we don't know which one. We mention here a few:

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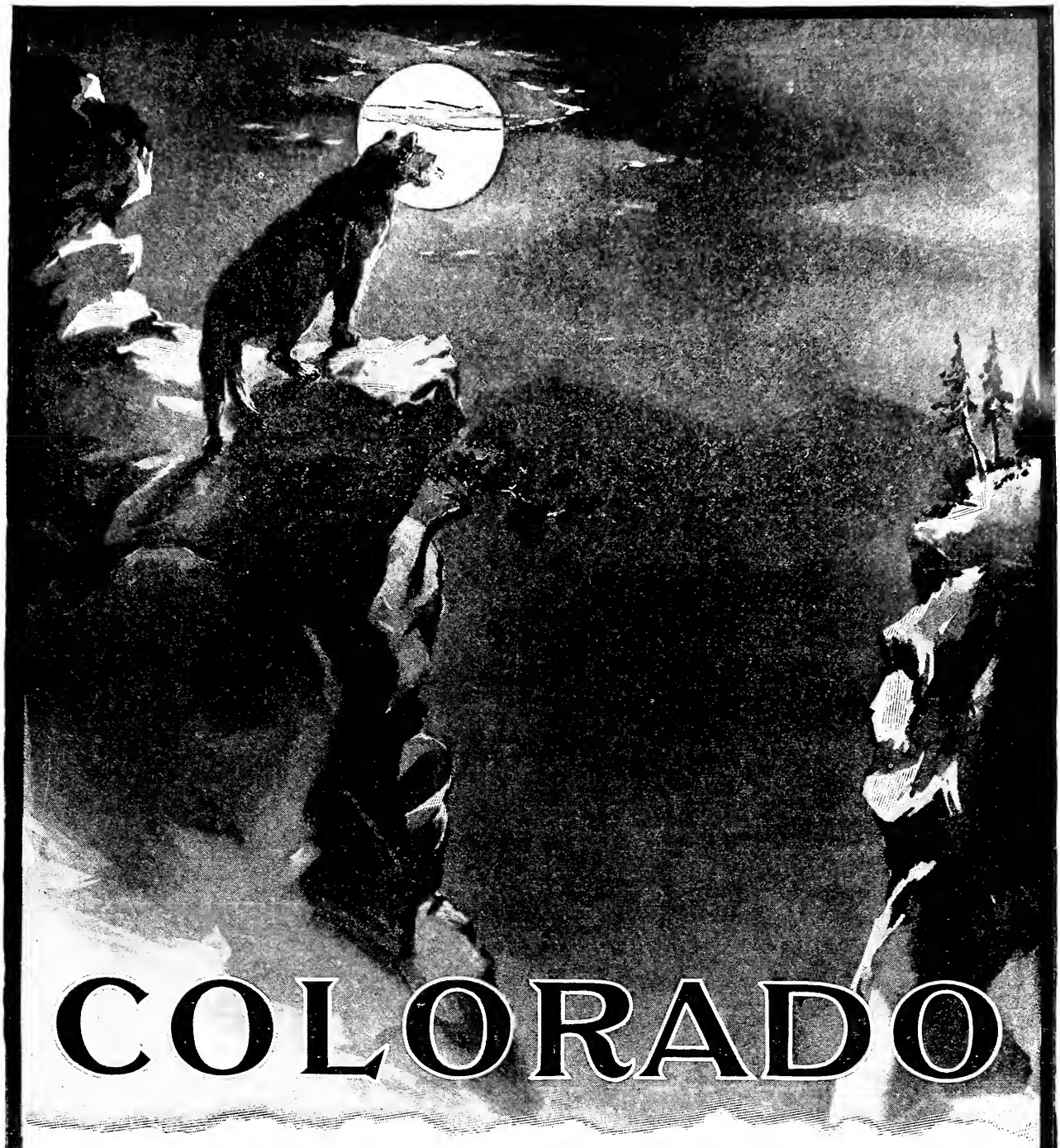

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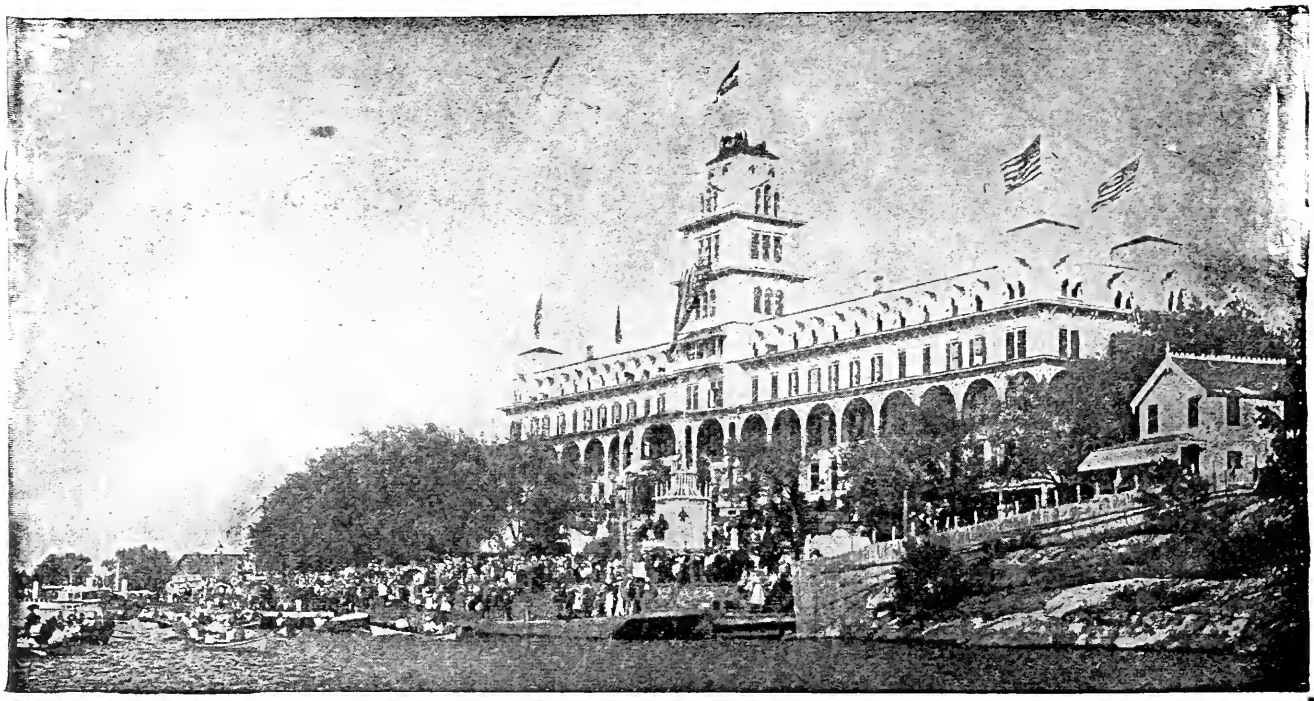

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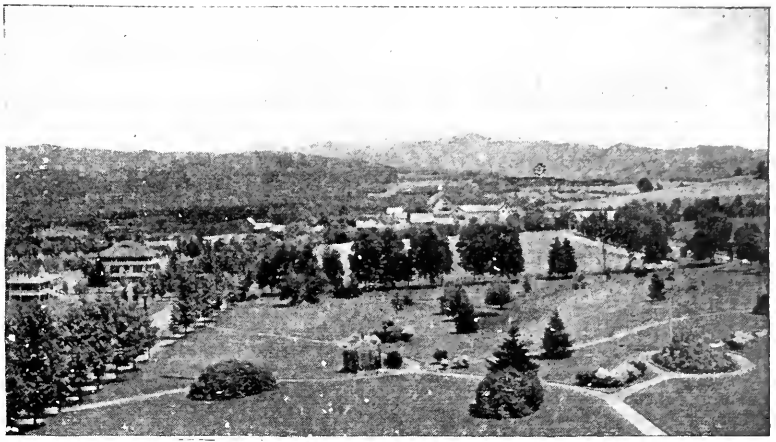

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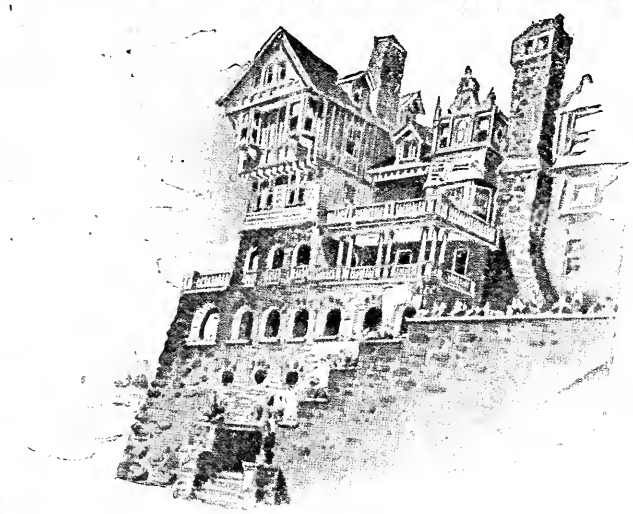

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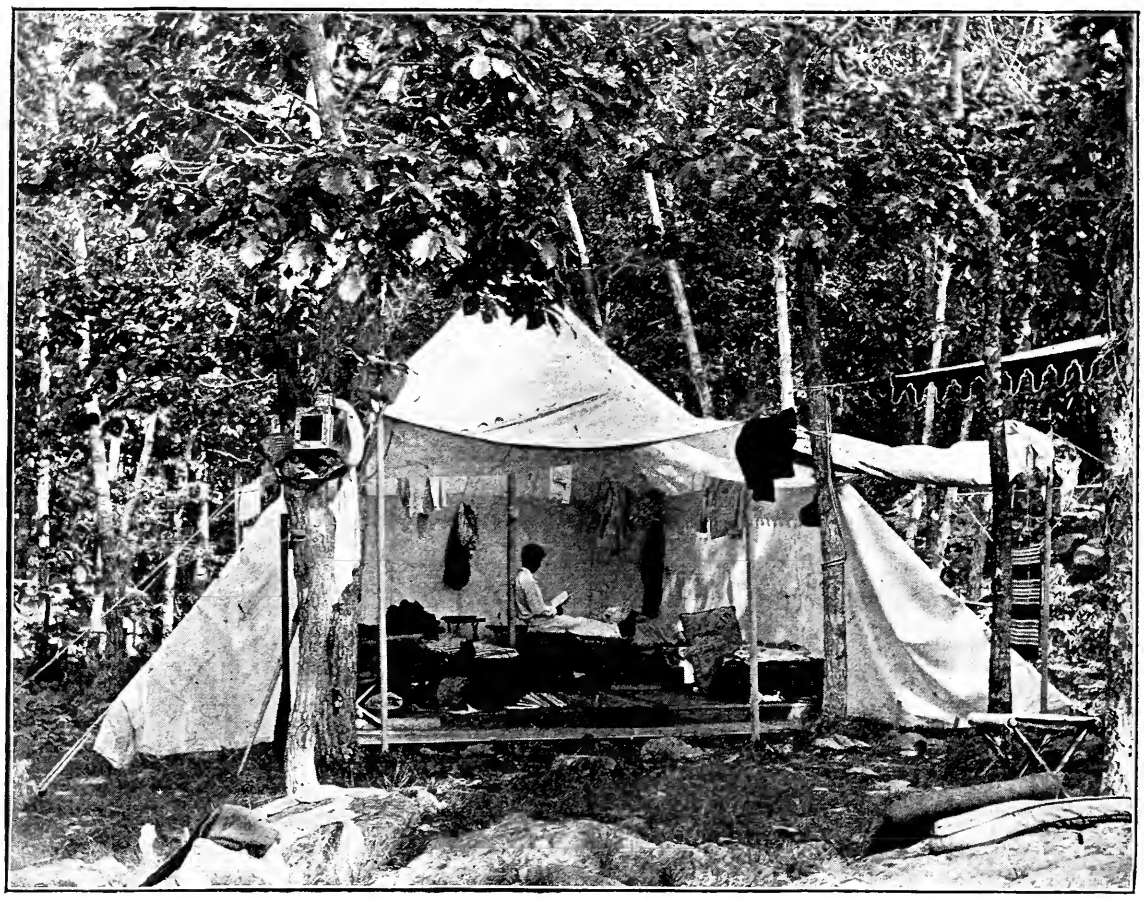

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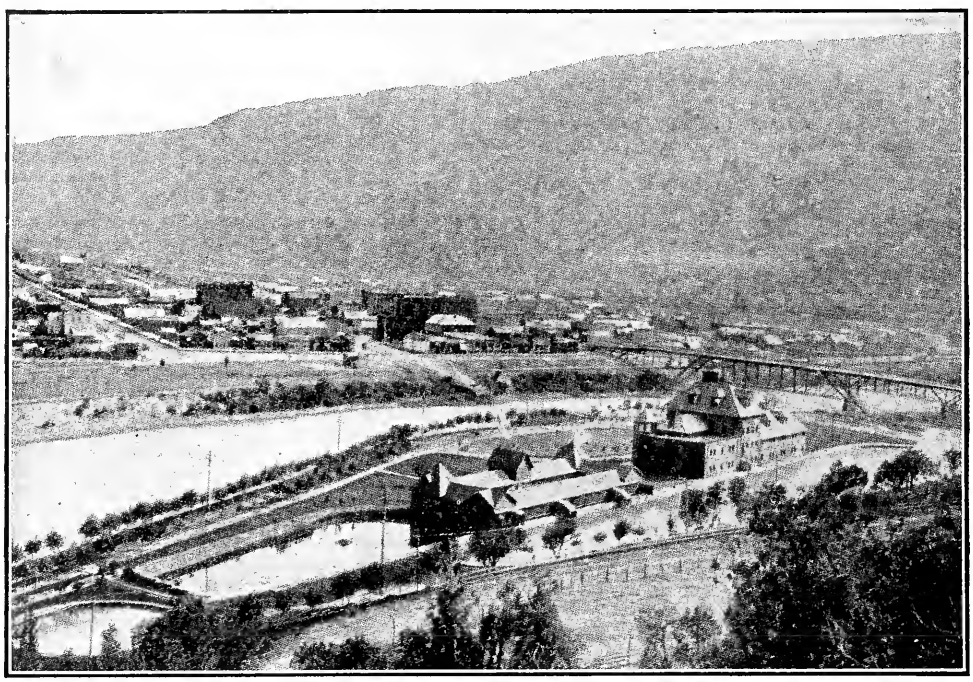
The Missouri Pacific Railway with its connecting lines the Denver and Rio Grande Railroad and the Rio Grande Western Railway will offer very low rates to all points in Colorado during the entire summer. It is the most direct route from the South and East



GLENWOOD SPRINGS, COLORADO.

The mountains of Colorado are as picturesque, grand and sublime as those of Switzerland. They rear their heights of never-trodden snow, the same as the Jungfrau, and their hidden beauties have never been portrayed by pen, pencil or brush.

In the light of modern transportation facilities they lie at the threshold of every health and pleasure seeker's door. Amid the heat, turmoil and bustle of daily life they expand into the infinite and extend a cordial welcome to recreation, repose and rest. To live among them during the summer months is to dwell in a land of perpetual sunshine—almost midway between earth and heaven. There are clouds and showers at times, it is true, but just enough to make a glorious sunset.

In that great tract along the eastern foothills in which lie Denver, Colorado Springs, Manitou, Pueblo, Trinidad, Golden, Boulder, Fort Collins and Greeley the sun shines sixty-two hours in every hundred in which it is above the horizon.

via the Pueblo gateway to the famous resorts of the Rocky Mountains. It has a double daily service of fast trains from St. Louis and Kansas City with equipment unsurpassed by that of any other railroad in the West. A vacation spent at the seaside or eastern mountain resorts can not be compared for a moment with the bracing and invigorating effects derived from the freedom of outdoor life in Colorado. The summer climate is simply delightful, the atmosphere being crisp and cool during the day and inviting to peaceful repose at night. There are no flies or mosquitoes in the higher altitudes. Even the cloudy days do not preclude an outdoor life. They are not accompanied with the penetrating dampness or rawness of the Eastern or Middle States. A camping season in the mountains of Colorado is one of the greatest inducements that can be offered to thousands of men and women who are looking forward to and arranging for the summer vacation, which is to give a respite and relief from the toil and

turmoil of daily business and domestic cares. Camp life in the Rocky Mountains means days of rare sport and pleasure, followed by nights of delicious repose—it means revelry in the warm sunshine every day with cool and sequestered nooks always near at hand.

ON THE BANKS OF THE RIO GRANDE, COLORADO.

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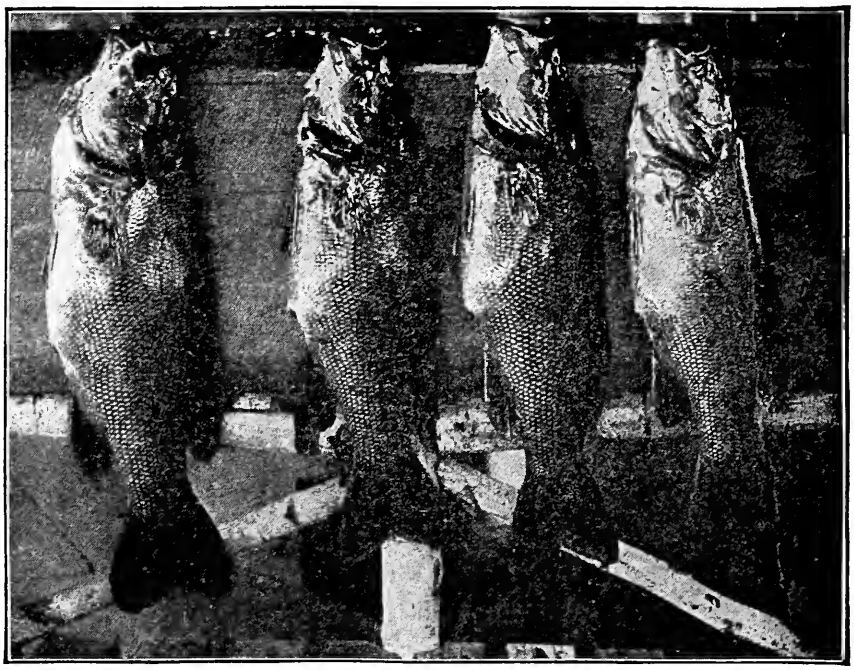

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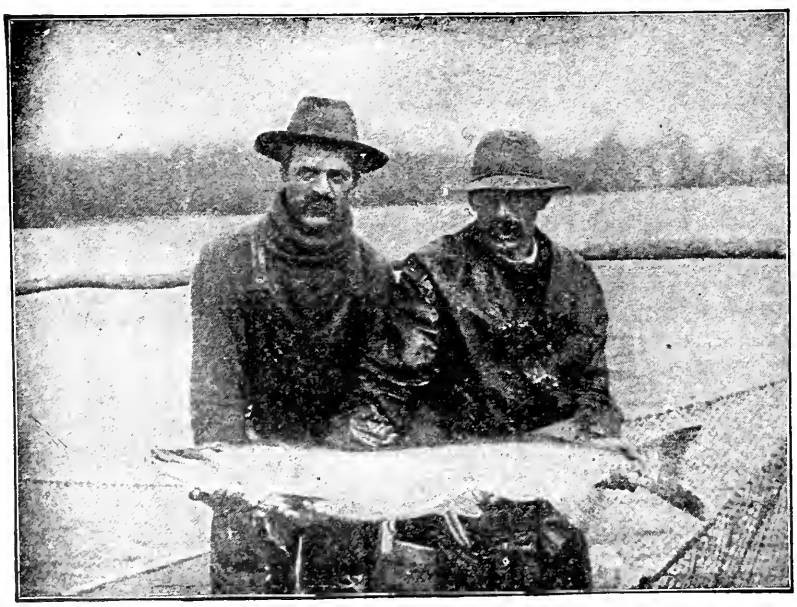

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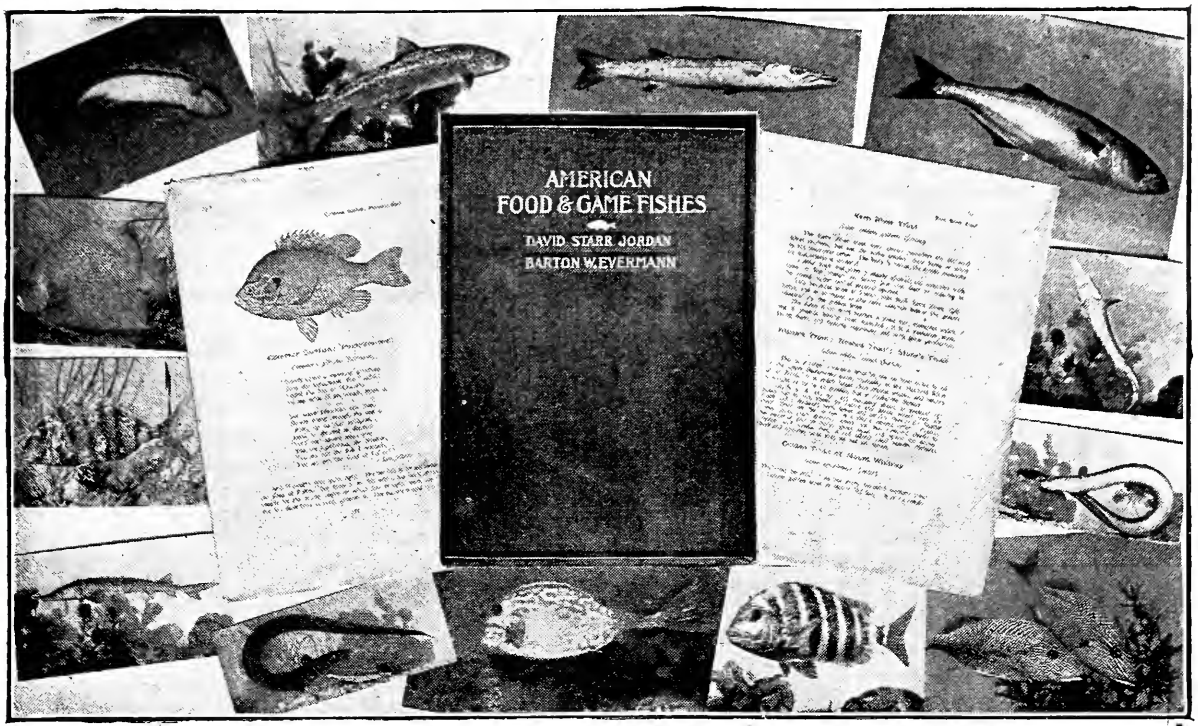

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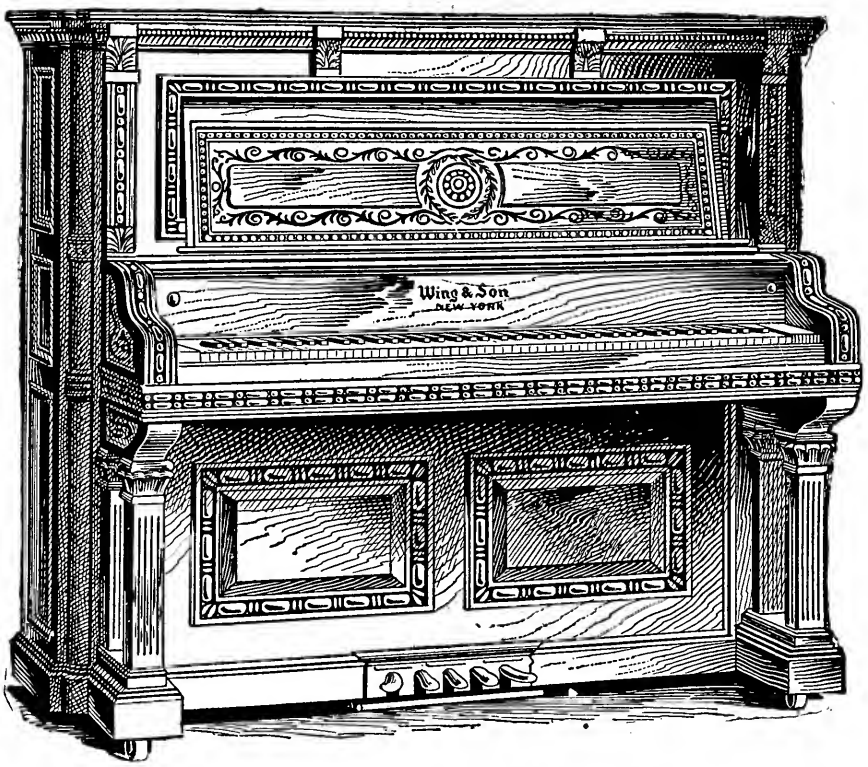

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STANDING ON AN OLD PINE LOG, ONE FOOT IN THE TRAP, HE GLARED AT ME.

RECREATION

Volume XVII. JULY, 1902. Number 1.

G. O. SHIELDS (COQUINA), Editor and Manager

TRAPPING A MOUNTAIN LION.

CHAS. A. FRIEDEL.

In Southern Colorado, a branch of the Purgatory river known as the North Fork has its source high up in the Sangre De Christa range of mountains. Along this stream and several of its small branches, I was prospecting for gold.

One day, as I was returning down the mountain to my camp, 3 deer suddenly sprang from out the brush, dashed across the path in front of me, and bounded up the side of the mountain. For a second or so I was at a loss what to do, and could but stand and admire their graceful movements. After going 200 yards they separated, the doe and the fawn going to the right, while the other, a large buck, came to a stand beyond a boulder, with only his head visible above its top.

Though not in urgent need of venison, the temptation to see if I could hit the buck's head at that distance was so great I could not resist it. I raised my rifle, made a slight allowance for the drop of the bullet, and pressed the trigger with a "don't care if I do miss" sort of a pull. The bullet entered the deer's head below the ear, killing him almost instantly.

The rock was 10 feet across at the base and about 5 feet high, with a flat top. The side on which the deer lay was sloping, and the sun being almost down, I thought I could do no better than to draw the deer up on the rock and leave him there until morning. That, with some difficulty, I did; then, rapidly descending, I soon reached the trail at the bottom of the canyon and in about an hour arrived at camp.

Early the next morning I was up, and after a hearty breakfast I buckled the pack saddle on one of my best burros and returned to the rock to get my deer. Arriving there, I found someone had been before me and had carried, or rather dragged, him away. The thief had been unable to shoulder the carcass, and a broad trail lay before me, down the mountain. This I followed, but found nothing by which I could identify the robber until I came near the creek. He had pulled the deer while walking backward, and in that way had covered his own tracks. Near the creek, however, he had met an obstacle in the shape of a fallen pine. There, it appeared, he had a great deal of trouble, and in his efforts to get the deer over the log he had left his own footprints. The thief was a large mountain lion.

The creek being but a few yards away, I began to be on my guard. I was certain he had not been able to draw the carcass across the stream. Pushing through the thick underbrush and aspen trees that lined the stream, I came on the remains of my deer. The lion had feasted to his heart's content. After devouring all of one hind quarter, and part of the back, he had covered the remainder with some sticks and leaves. Being well acquainted with the habits of the beast, I was sure he would return to renew his repast. I therefore made preparations for his capture.

After removing the hide, I cut up the best portion of what meat was left and tied it up in the skin. Then, making a hole in one of the deer's

ears, I passed a piece of buckskin through it and hung the head on a limb of a sapling. Some 2 miles above my camp, on Whisky creek, was a bear trail, and near that trail a large steel bear trap, 42 pounds in weight, had been set 2 or 3 nights previously for a large cinnamon bear. He had, however, failed to accept the invitation.

I took this trap up and carried it to the place where the lion had had his royal feast the night before. Removing the deer's head from the limb, I fastened it securely to the butt of a small aspen tree. Then I cut down a tree from which I made a clog about 8 feet long and 6 inches in diameter at the large end. I put the ring of the trap chain on this clog and fastened it with a wedge. Then I dug up the earth near the deer head until I had a hole about 4 inches deep and about the size and shape of the trap. In that hole I placed the big trap, after setting it, and covered it with earth and leaves.

I was up and on my way to the trap early the next morning. The shadows cast by those lofty mountains among which my camp was placed had not as yet been dispelled by the rising sun, although higher up, on the Sangre De Christa range, vast piles of snow were glistening in his rays. As I neared the place where the trap was set, I became anxious to see what my luck had been. After I had penetrated the thick undergrowth, to within 50 feet of the spot, I found I had made a capture. The aspen trees near where the trap had been set had the bark torn off. The marks of teeth and claws on other trees and the trampled earth bore evidence there had been a fierce battle between the beast and the big trap.

Stealing softly forward, I soon discovered the lion. Standing on an old pine log, one foot in the great trap, he glared at me, silent and grim. He made no motion except with his tail, which he lashed furiously. His head was in a line with his body as he stood directly facing me. Not wishing to make any bullet holes in his skin, I moved forward and began to circle around him. He made no effort to change the position of his body, but followed me with his intense gaze until I had made almost a half circle. His head then being out of line with his body, my chance to fire had come. This I did with careful aim, just above and between those glowing eyes.

As the report of the rifle rang through the canyon, the head of the beast sank down and his body fell sideways off the log. Reloading my rifle, I stepped quickly forward, but life was extinct before I reached him.

He was in the parlor of a St. Louis residence while his fiancee was playing a Chopin sonata on the piano. Her mother was seated almost opposite her future son-in-law, and when the proper opportunity presented itself she said:

"Don't you think Edna has a great ear for music?"

"I certainly do," replied the young man. "If you'd stretch a few strings across it it would make a lovely guitar"—

But he never finished his sentence.—N. Y. Herald.

WILD GOAT SHOOTING ON THE DESERTAS.

LAURENCE MOTT.

The yacht was lying off the town of Funchal, Madeira. We were only to stay 2 days, as we were homeward bound and in a hurry to get to New York; but as I had received a tempting invitation from the owner of the Desertas islands, which lie 20 miles to the Westward from Funchal, to shoot over them, I decided to take the 2 days and go over to the islands after wild goats. Leaving the yacht one morning at 1 o'clock, i. the cutter, we sailed across and reached our destination at 7 o'clock. I say we because I took 2 sailors with me, besides a Portuguese, whom the owner of the islands recommended as a good guide. We tumbled our stuff ashore and while the men got a fire going for breakfast I took the glasses and climbed up 100 feet or so on the cliffs to get a look about. It was the most desolate sight I ever saw; no vegetation of any kind, except here and there a few patches of moss. Nothing but rocks and cliffs towering some 2,000 feet from the water's edge. I could see no possible chance of getting to the top, as the cliffs seemed perpendicular everywhere.

After breakfast we made everything fast in case there should be a blow while we were gone, and started. I had never done any high climbing, and the altitudes bothered me. In some places we edged along goat paths not 4 feet wide with the cliff on one side and a sheer drop of 1,000 or 1,500 feet on the other. Two or 3 times on the way up we saw goats, but they either were too far off to attempt even stalking, or they saw us just about the time we saw them, and disappeared. It took us 2½ hours to reach the top, and I was nearly exhausted when we got there.

"Francisco," I said, "where are the goats?"

"Find some plent' quick now," the guide answered; so we trudged on, sneaking from rock to rock and crawling on our hands and knees whenever we came to a turn in the path, lest there should be goats on the other side. The native method of hunting is primitive and tiresome. They creep along for hours sometimes, and when they see a goat they hide themselves comfortably, trusting to luck that the animal will come toward them. The goats are very wild and "light out" at the slightest movement or noise on the part of the hunter.

We had been dragging ourselves slowly along for an hour when the guide, who was ahead, suddenly dropped flat. I quickly followed his example and awaited further developments. In a few moments he motioned to me carefully, and I wriggled along the ledge till I got to him. Following the direction of his eyes I saw on the edge of a cliff, some 250 yards away and fairly well above us, 4 goats. With the glasses I could see that one of them was a large buck with a fine pair of horns. They were nibbling some bits of moss and had not discovered us. I got my Winchester 30-40 carefully in position and waited for a favorable opportunity. At last the "bigga one," as Francisco called him, stepped to the edge of the cliff, as though trying to get a better view of our position. I thought that my best chance and let him have it, taking sight at his shoulder as nearly as I could make it. When I fired the buck jumped forward and fell clear of the ledge. Down he went, turning over and over in the air.

"Buono, buono!" ejaculated the guide; "me get."

Before I could say a word he was over the edge of the path we were lying on and was going down the cliff at a break-neck pace. I thought surely he would kill himself, as one misstep would have plunged him about 1,600 feet into the water; but in another hour I heard a faint shout, and looking over the edge I saw him standing by the body of the goat.

While I waited for him to get back I took the glasses, and leaving my rifle on the ledge I climbed up to a pinnacle about 150 feet above me. From there I commanded a much more extensive view, and to my delight I discovered a bunch of 6 goats around in the next chasm but one. They were evidently out of hearing of the shot, as they were all lying down in the warm sunlight. I hurriedly scrambled back to the ledge where I had left my rifle, and leaving my pipe and tobacco pouch there to show Francisco I would be back, I started. It was nervous work, all alone, but in 2 hours I was within 300 yards of the bunch. I could get no nearer, as there was no way but a narrow ledge and that was in full sight of the goats. For half an hour I waited, hoping they would move up to the ledge where I could get a shot. Finally they got up hurriedly and started along the path they were on, but away from me, so I fired at the largest buck and missed. The bullet struck close, and the brute must have heard it whistle, as it covered him with sand and dirt. They all disappeared like a flash, and I was cursing my poor marksmanship when something mov-

ing caught my eye below me, and there were the whole 6 going like the mischief along a path about 150 yards away. They must have got down out of my sight and then started back again on that trail.

I threw up my rifle and holding a trifle ahead of the buck which was in the lead, I let him have it. He stumbled, fell and began kicking vigorously. The rest of the animals hesitated a moment then jumped over their fallen leader and went on with redoubled speed. I got down to the wounded goat just in time to prevent his kicking himself over the ledge. Getting my hunting knife in his throat was quite a job, as the ledge was not wide and I did not fancy going down the great height into the sea. I got a rock as big as I could lift and managed to throw it on the goat, which kept him quiet long enough for me to finish him. Cutting off the head and the skin well down on the shoulders, for mounting purposes, I tied it on my back by some handkerchiefs, and began my return trip.

Francisco was calmly smoking my pipe when I got back to him and to my surprise there was the whole body of a goat at his feet.

"Ha! Ha!" he said, "you gooda one! Get all 'lone! buono, buono!"

We compared the 2 heads and found that the last one I had shot was a trifle the larger. These goats are not very large, weighing possibly 50 to 70 pounds. They are dark in color, have heavy, long hair and excellent horns, being somewhat like the chamois in shape, but much heavier and longer.

It was getting late and it was as cold as winter up on the plateau, so we fastened on our game and began the trip to camp. We got there in 2 hours and after supper turned in. Our beds consisted of 2 thicknesses of blanket between the rock and our bodies and the same quantity over us, but it felt like down to me. I never knew anything more comfortable.

The next morning at 6 o'clock we loaded the cutter and set sail for Funchal. It was blowing hard, but as the wind was well abaft the beam the seas did not bother us much. When we got about half way across we saw the yacht coming out to pick us up, which she did in a short time.

AMATEUR PHOTO BY CLINTON A. SMITH.

OWLETS.

Winner of 36th Prize in RECREATION's 6th Annual Photo Competition.

ON THE NEZ PERCES TRAIL.

WESTLEY JONES.

Photos by the Author.

An article recently published in RECREATION, "Hunting for a Place to Hunt," by H. H. Todd, in which the author relates some of the experiences of himself and party in Central Idaho in 1899, was particularly interesting to me and has prompted me to tell the story of a recent trip over the Nez Perces trail, in the expectation that it may be of interest and value to some of the many readers of RECREATION.

PACK TRAIN.

Mr. Francis E. Young, of San Francisco, and I, *en route* to Concord, Buffalo Hump, Idaho, to inspect some mining properties in which we are interested, met and made the acquaintance of Messrs. Todd and Moses soon after leaving Chicago, and made the railroad, steamer and stage journey with them to great and growing Grangeville, where we were all put up at the Jersey House, of which the genial George K. Reed is proprietor. Mr. Young and I started for the Hump, driving to Adams camp and leading our saddle animals. We halted at White Bird to feed the horses and take our lunch, and were engaged in that pleasant task when the wind storm mentioned by Mr. Todd in his article swept over that section with the suddenness, swiftness and destructive power of a cyclone. The section is heavily timbered with pine, and the trees, large and small, were lashed, twisted, smashed and mowed down by the score. Like most sudden and violent atmospheric disturbances, this one was of short duration, and the weather soon became calm and clear again. Not so the Florence road, across which many trees had fallen which had to be cut out before we could proceed. Had we been on the road when the storm struck, instead of lunching at White Bird, we could scarcely have escaped destruction by the falling trees.

We reached Adams camp that evening, and the next morning, well mounted, we

hit the Gospel Mountain trail to the Hump. The distance is a little less than 25 miles, and the greatest elevation about 8,000 feet. The trail? Well, many better mountain men than we had been over it, but it snowed all day, and that doubled the difficulties and halved the pleasures of the trip, as most of the magnificent views were shut out by the storm clouds.

We reached Concord about 9 o'clock in the evening, having been on the trail somewhat more than 12 hours. When within a half mile of Concord, we narrowly escaped being blown from the trail into the canyon below by blasts which were fired almost in our faces. At that time our company was operating a pack train of about 25 head between Adams camp and Concord, and employing some 40 men in the various operations of mining, building, developing town site, etc. Just previous to our arrival the first grave was opened on our property in Concord to receive the body of the unfortunate victim of a quarrel which terminated fatally. James P. Turner had passed the previous winter in Concord and reported 18 feet of snow. The small log structure in the foreground of the accompanying picture was his only shelter and was the first house built at Buffalo Hump.

So much has been written within the last few years *in re* Central Idaho, and especially the Hump and adjacent country, touching on the vital points of physical and climatic conditions, mineral resources, development, etc., that little remains to be added until new history is made, and it is making fast at the present time. The railroad from Lewiston to Stites has cut off about 60 miles of the stage ride over Camas prairie to Grangeville, and a passable wagon road has succeeded the Gospel Mountain trail. Thunder mountain is now attracting much attention, and it is expected that the tide of travel will soon set strongly that way.

Finishing our business at Concord, we returned to Grangeville and thence back to Boston. I decided that in the following year I would approach the Hump from the East, leave the railroad at a point in Montana and travel West over the Nez Perces trail to Elk City. Arrangements were made accordingly, and Monday, September 3, I left the cars at Monida, Montana. There I found James Blair, with whom I had previously made several similar trips, and his 2 assistants, John Bray and Joe Kemp, ready for me. Blair's outfit, 22 head of horses, of which 14 were pack, 6 were saddle animals and 2 were young colts, was the handsomest and best I have ever seen. He raises, breaks and trains his animals himself. As a hunter, trailer or packer, Mr. Blair probably has no superior in his section of the country. He is efficient, fearless and tireless when on the trail. Our supplies, selected and shipped from Boston, were on hand, the packs were accurately weighed and prepared for the horses, and Wednesday morning, September 5, with an outfit as complete and perfect as careful thought directed by the knowledge of long experience could assemble, we started on our long journey of nearly 500 miles to Buffalo Hump. James Blair lead the way, and he was leading in his own bold, fearless way when we entered Elk City, Idaho, 24 days later.

Our course was via Big Sheep Creek basin, Horse prairie, Bloody Dick creek, Big Hole, Moose creek, Trail creek, Ross Forks to Darby, thence via Nez Perces trail to Elk City. None of us had been over the ground before; the trail was difficult, even dangerous, and in places blind and impassable until with axes we cut our way through fallen timber. We were late in the season in starting and encountered snows and severe cold. Feed for the horses was scarce and on more than one occasion lacking, and horses will travel a long way after being turned loose, looking for feed. Water is to be found only at long intervals, and the camp at night must be timed to water and grass. Here is a mountain wilderness of pine, an ocean of tree tops nearly 150 miles in extent East and West, with little water, few, if any, mountain meadows, so common in other sections, and no game of account, large or small. We saw a solitary mule deer and half a dozen fool hens. Nothing else. We found none of the usual tracks or signs of game along the trail or about the watering and feeding places. We met two Flathead hunting parties whose camps looked rather lean. They were having poor success.

The first day out from Monida, when near Lima, we narrowly escaped disaster. The road on which we were then traveling makes through a narrow defile with perpendicular walls on either side. Ahead it narrows to a mere pass, through which comes a spur of the railroad. Half way between us and the pass a large drove of cattle were feeding, many of them standing on the tracks. We were giving them all the room we could, when through the pass came a freight train, up grade, with ringing bell, screeching whistle and clouds of black smoke hanging low and blowing straight toward us. It is impossible to describe just what followed, I was so busy with that part which particularly interested me, namely, an endeavor to save my own neck. There was a flying wedge of bellowing cattle and a wild dash of stampeded horses, snorting and bucking. The bell, the whistle, the rush of the animals,

the shouts of our men, the rumbling of the cars, the black smoke, and—it was over, with no one hurt, though slightly jarred.

The second night out we camped at the North end of Big Sheep Creek basin, near the ranch of Joe Smith. One horse was picketed, 8 were hobbled, and the others were turned loose. In the morning all were gone except the one on the picket rope. Blair and Bray went after them on foot, without any preparation for a long tramp. We did not see them again until the night of the third day after, when they returned with 18 head. Two belonging to Joe Kemp were missing, and as Joe had recently sacrificed a $2,000 outfit in Alaska, he felt his loss keenly. Our animals were run off by horse thieves to a distance of 25 miles from our camp, finally up a steep mountain side and down into a deep basin. The hobbles were not removed, and the legs of the animals were terribly mangled. They were a sorry sight when they got back to our camp. Worse than inhuman brutes were they who committed the outrage on horses and men. Blair and Bray trailed the horses until they found and brought them back. Blair loves a good horse, and his wrath was dark hued and continuous. He was able to pick out the tracks of the horses ridden by the thieves and he trailed them to their corral. Having gathered some local traditions, he believes he knows who the men are, and I do not care to be present when he meets them.

During 3 days of enforced idleness I came to understand why sheep herders become so melancholy. There was one bunch of 3,600 sheep about our camp, and the continual bleating and that undulating mass of waving wool drifting aimlessly about were maddening. The herder was an agreeable man. A compensating feature in our delay was the abundance of sage hens, there being almost as many hens as sheep in the basin. Bunches of 100 to 200 could always be found in the wet bottoms, and the young birds at that season are equal to grouse. In the meantime I bought a saddle horse of Joe Smith, "Baldy" by name, and by nature a reliable and sociable beast, sound and sure footed.

A COSY CAMP.

Resuming our journey, events ran smoothly for a while. Our chief difficulty was with fences. We sometimes went 3 to 5 miles out of our way to weather a fence, and generally there was someone present to see that we did go around instead of through it. On the 14th we

camped at a ranch in Big Hole basin. We took turns during the night in fighting off a drove of hogs that were determined to feed out of our packs.

Sunday, the 16th, we visited Big Hole battle ground. The thrilling story of that historic event is so well told by the editor of RECREATION in his book that every reader should have a copy. Just previous to our arrival, a badger had dug into one of the graves on the point and a skull and bones lay exposed to view, thus rudely disturbed after more than 20 years' peaceful rest. Whether white or Indian we could not determine. The monument is much defaced. The badger and the vandal are on the same level of ignorance. The badger follows his instinct to burrow. The vandal yields to a morbid desire to possess. The vandal has had an opportunity to learn and should know and do better.

The next day, after leaving Big Hole, we had a startling experience. A bunch of several hundred sheep had become lost, and, seeing our horses from a distance, came tearing along after us like mad. Blair and I were leading the procession down a steep incline in a narrow part of the trail, when the bleating bunch struck our rear guard and stampeded the pack horses down on to us, pell mell. The conditions were favorable for trouble, but we succeeded in extricating our horses and selves from the plunging, kicking, biting bunch without accident, though the sheep followed us several miles and we had some difficulty in getting away from them.

Tuesday, the 18th, we camped at the ranch of John Stella, just out of Darby. Stella has a good sporting bungalow. This season he took out the party of Mr. Charles P. Pettus, of St. Louis, over the Lost Horse trail. They captured deer, elk, goat and bear.

On the 21st we were well into the mountains on the famous Nez Perces trail, from which we had been told we could kick the game as we went along. How difficult it is for one to say truly, "That was the happiest day" or "This is the sweetest music," or "She is the prettiest girl!" Generally the last seems best. I can truly affirm that at a given point after passing Castle mountain the scenery is the most beautiful in extent and grandeur, breadth and scope, ruggedness and magnificence that I have ever seen or ever hope to see, and my experience has been considerable. For an hour I continually repeated to myself, so that my mind should be fully impressed by the fact, never after to waver, "This must be the grandest sight on earth."

We camped that night near a small Flathead Indian outfit. They showed us where to find a small spring. During the evening we were overtaken by Messrs. Robb and Chillson, who were making a break to go through with us to the Little Salmon meadows. We found them good company, but they were a divided house; one in favor of pushing on and the other in favor of turning back before they were snowed in for the winter. They eventually went with us as far as the Little Salmon. The meadows, like the game, were not to be seen. We rested in camp the 23d. There had been a snowfall of several inches. The 24th we crossed McGruder mountain, one of the most difficult sections of the trail. We were profoundly impressed by the details of the awful crime committed there when McGruder, his men and mules were cruelly murdered and their bodies thrown over the cliff.

The afternoon of the 25th we were "laboring heavily in a rough sea"; that is to say, we had some doubts as to the trail. We camped that night on the summit of the Divide, altitude not less than 10,000 feet. There was little feed or water, the cold was severe, a high wind was blowing and snow was falling. Had the storm continued, our fate would have been settled right there, but fortunately it cleared during the night. On the 27th Messrs. Robb and Chillson quit at Little Salmon. They had had enough and turned back. From Little Salmon to Elk City is about 40 miles, and easily done in 2 days. An interesting feature of the trail is the multitude of inscriptions on the trees, generally some tale of woe or hard luck story, coupled with advice to turn back.

On the 28th we camped at the ranch of Buster Smith, Elk City. I drove 55 miles to the nearest railroad point, Kooskia. Blair and outfit went back over the trail, and narrowly escaped being snowed in for the winter. One horse perished, and on their last day in the mountains they encountered a furious snow storm that nearly overwhelmed them, but they finally succeeded in breaking through to Darby and thence back to Blair's ranch, in Centennial valley, where I am sure you would be a welcome visitor.

She—I understand veal has gone up.
He—I guess that's right; I see the restaurants have raised the price of chicken salad.—Yonkers Statesman.

LOOKS LIKE RAIN.

TIDD MURRAY.

Low'ry sky an' Southern breeze,
  Sun he's hid ahind a cloud,
Robins singin' in th' apple trees,
  Hoppe. chirpin' sort o' loud.

Guess I ain't so weather blind
  That I don't know th' token;
Reckon that thar Southern wind
  Shows th' drought is broken.

Guess I can't get in th' hay
  'Coz its sure ter rain;
Better wait till another day
  When th' signs are not ez plain.

Reckon I'll get out th' pole
  An' dig some worms an' hike
Down ter th' old deep river hole
  That used ter hold the pike.

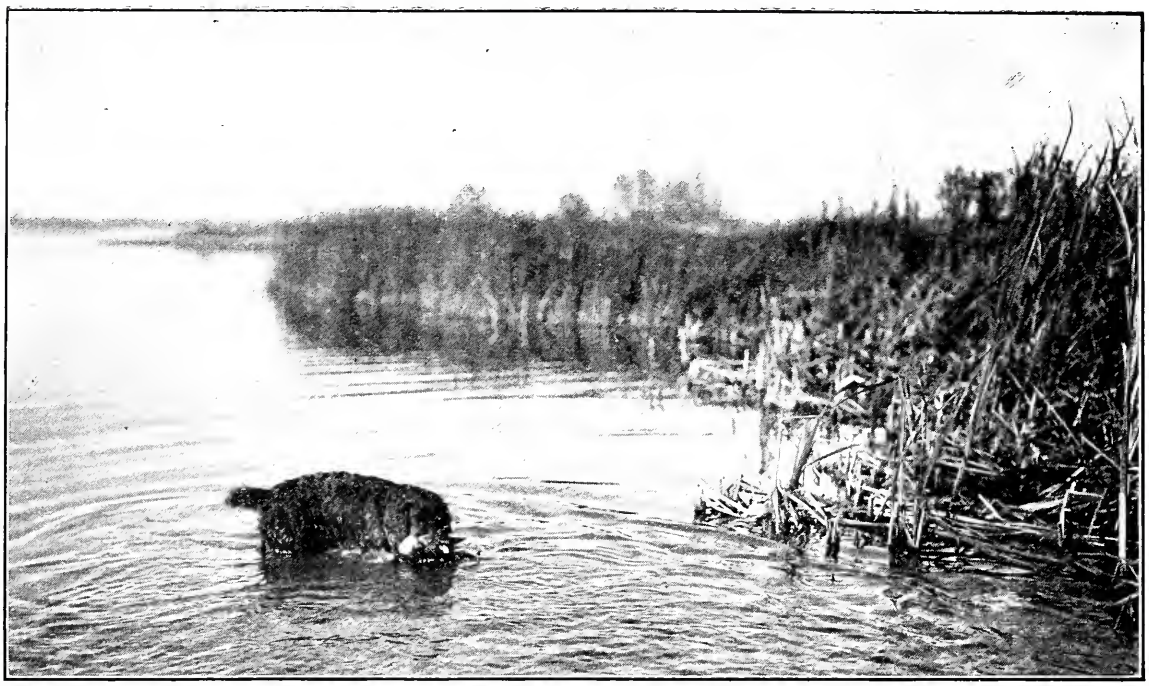
What! th' sun a burnin' through?
  Blame it! let her burn.
An' th' sky a turnin' blue!
  I don't care; let her turn!

Might jest ez well be fishin'
  Ez ter be er pitchin' hay
When all th' time yere wishin'
  That termorrow'd be a rainy day.

AMATEUR PHOTO BY R. C. W. LETT.

A MORNING NIP.

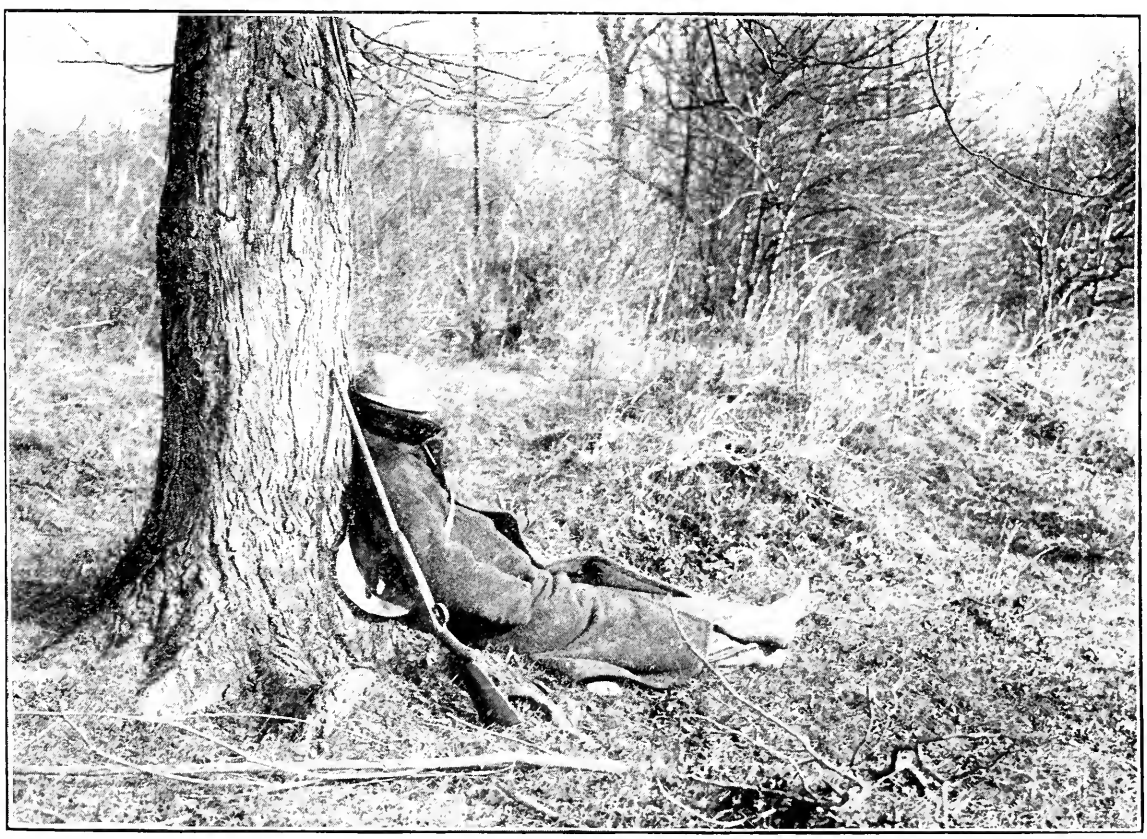
Winner of 28th Prize in RECREATION'S 6th Annual Photo Competition.



AMATEUR PHOTO BY J. E. STANLEY

A GOOD RETRIEVER.

Winner of 30th Prize in RECREATION'S 6th Annual Photo Competition



AMATEUR PHOTO BY DR. J. B. PARDOE.

THINKING IT OVER.

Winner of 37th Prize in RECREATION'S 6th Annual Photo Competition.

THE MYSTERY OF A BULLET.

CHARLES W. SAWYER.

One September day in 1895 John and I were starting for our vacation in Northern Vermont. As we walked through the city streets on our way to the train, we saw a sign in a gun store window, "The U. M. C. Company's new cartridge, 22 short smokeless mushroom, just received." John had in his hand a fancy 22 caliber single shot rifle, and he bought a few hundred of these new cartridges. No suspicion of the trouble they would get us into shadowed our sunny spirits while the train bore us to the beautiful woods of the North. Forests and fields, hills and valleys, sunlit waters and shadowy crags passed in endless procession, until, at last, far from the towns the conductor called "Staceyville." At this little railroad station the farmer we were to board with met us, and drove us a 3 hours' rough-and-tumble, jouncing, jolting, bumping ride, up hill and down dale, through woods and past clearings to the 'way-back farm that was to be our home. In this quiet, sweet smelling, old fashioned farm house, in the fields, pastures, and rambling orchards that made up the clearing, and in the border of the woods around the clearing, we were for a time content. There were ruffed grouse and squirrels for John to shoot with his rifle and new cartridges. There was a range sufficiently long, sheltered, and well lighted, whereon I could play at target shooting with my powerful hunting rifle. There were rest, recreation, rustic beauty, and every attraction to keep us at home, yet we soon became restless, and strayed farther and farther away.

In going about the country we often stopped at the outlying farms, and became friendly with the inmates. They were a pleasant lot of people, always ready to stop work for a chance to gossip. There was one of the lot, Ezekiel Withington, on whom we did not at first call, because the farmer with whom we boarded was at law with him, and told us terrible tales about him. We found, however, that some of the other farmers spoke well of Withington, so one day we stopped at his house. We liked him very well. He treated us to cider, and showed us about his farm. He had a magnificent place, of some 1,500 acres, picturesque buildings, herds of cattle, and a big flock of sheep. We soon found that some of the best small game hunting in the country was to be had in his woods. He was interested in John's rifle, and examined it and the ammunition with much care. Then he brought out his grandfather's muzzle loading rifle, which was a remarkably fine weapon, and we had some shooting. We found the man and his woods so attractive that we spent considerable time there. One thing seemed odd to us. He let his cattle, with a bull in the herd, and his sheep, with several rams among them, roam at will about the country, although a town road ran through his farm. We asked him if it was not dangerous. He said the bull would not hurt anybody, as he was tame, and the sheep were all pets; but we heard elsewhere that Withington had sometimes had his sheep shot. The country was heavily forested, and in the fall and winter there were numerous camps of hunters and woodchoppers, so it was difficult to fix the blame. The loss and annoyance had become so great that Withington and other farmers had succeeded in getting a law passed making the illegal killing of sheep punishable by both fine and imprisonment. In telling us about it Withington's eyes snapped and his manner was such that we could see it would go hard with an offender if Withington could catch him.

Soon after this we were going along the road one morning, guns in hand, on our way to a shooting match at the village. John had his new rifle. As we came out of the woods we saw Withington's sheep, an immense flock, feeding on both sides of the road in the pasture. They scattered from us right and left. I can do a little something at imitating the calls of various animals, and we had considerable fun in mystifying the sheep with the plaintive bleat of a lamb in distress, that drew them toward us, and the deep bass of a watchful old ram, that sent them running off again. Suddenly there was a slight sound behind us. I had only time to turn my head part way round when something like a great dirty white streak struck John in the back. At the heavy thud my friend doubled backward like a bent bow, and was thrown forward by the impact of the mass 10 or 12 feet. He fell in a heap as if dead. At the same time his assailant, an old ram, with great curved horns, came down on his feet, lowered his head, and stood ready to charge again at the least sign of life. I laid down my rifle and ran at him. He promptly wheeled and charged me. As his ponderous head almost struck me I leaped aside, put out one foot, and tripped him. He was up in an instant, but before he could get away I had him by the tail, then by one hind leg, then, after a struggle, by both hind legs. I tied them with a piece

of cord, tipped him over, knelt with one knee on his head and the other on his body, and tied his front legs.

John, meanwhile, had got up, and was limping along to get his rifle. The first thing he thought of, after the edge of the pain was off, was whether the rifle was injured. It was without a scratch, for it had fallen on soft grass. John was the sort of fellow who would not give in to pain. He said he was all right, but I could see he was hurt. However, after sitting down awhile he insisted that we go on to the shooting match. I unfastened the ram's front legs, and taking his hind legs, trundled him along, wheelbarrow fashion. We got to Withington's after a while, and I fastened the ram in the sheep pen. We called at the house to see Withington, but he was away. I told Mrs. Withington the facts in the case, and added that I was afraid my friend was hurt worse than his grit would let him acknowledge. I asked if we might have a horse and buggy and Mrs. Withington consented.

We found a motley crowd assembled at the range. There were boys with cheap rifles, and men of all ages, with arms of about every degree of poorness and excellence. In spite of John's grit he was unable to walk without a bad limp, and this soon drew the query as to how he got hurt. His hurt did not affect his shooting, or his skill at making bull's-eyes, and the beauty of his rifle brought a crowd of lookers-on. They were greatly interested in the ammunition, for, although the bullet was small, and the powder of little bulk, it shot, in John's hands, better than their heavy charges. They championed him strongly in the matter of the ram, and were loud in their statements of what they would do if they had been in our place.

"Why," said one old grandfather, "that Zeke Withington haint no right on airth to let his cattle 'n sheep run in the public road. You orter shot that ram right then an' there, an' he never could 'a touched ye fer it. What's more, you've got a case agin him fer heavy damages. You just sue him fer $5,000 an' larn him a lesson."

"That's right," said half a dozen around us. The village lawyer edged his way up, and offered to take the case.

"You've got a clear case, gentlemen, and if you want to trust it to me, I'll guarantee you good money out of it."

We refused his offer, and John said he thought he should let the matter drop.

When we got back with the horse and buggy Withington had returned. There was a snap in his eyes that told us he had received the news from his wife, and considered that henceforth we were to meet as foes. John was as pleasant as usual.

"I suppose you heard from your wife," he said, "that your ram assaulted us this morning, on the road?"

"Yes," said Withington; "and I suppose you'll have Lawyer Gibbs, down to the village?"

"No," said John, "I shall not sue." Withington looked as if he wondered what kind of trick John would play.

"You and I have been good friends, Withington, and, as far as I am concerned, we shall remain so."

Withington soon became like his former self, and we left on the best of terms; yet, I had a suspicion that he thought there was a screw loose somewhere, and that he might yet get a rap when he was off his guard. The spirit of revenge was inbred in him, and in every one of the men thereabout we had chanced to meet, and he found anything different hard to believe.

The next to the last day of our vacation arrived, and we decided to go gunning. We went through a stretch of oak woods near the brow of a long hill above the pasture. We thought we ought to find some grey squirrels there, and perhaps a few ruffed grouse, but although we kept very quiet and exercised our utmost skill, we did not see or hear a thing larger than small birds. We did not even fire our rifles, and went home saying it was the poorest afternoon's hunting we had had.

The next morning we went over to bid goodbye to our neighbor to the South. The first thing he said to us was,

"Well, boys, that was big game you got yesterday," and he gave us a wink. We thought it was his joke on our not getting any game, and wondered how he knew.

"Yes," said I, "so big we could not get it home."

"How'd ye shoot it," he asked. "Accidental?" and he winked again and grinned.

"Shoot what?" said John.

"Why, Zeke's sheep. Haint ye heerd about it?" with a broader grin.

"No," said I, "we not only have not heard about it, but we didn't shoot it."

"O, go 'way! You needn't be afraid of me."

"Tell us about it," said John.

"Why," said the farmer, "last night about sundown, when the sheep come home to the pen, Zeke an' his man, who were standin' by the pen, noticed one of 'em was sick. It was kind er totterin' along, and pretty soon it laid down. Zeke, he went up to it, and it was dead, so quick. He turned it over, and ther warn't no mark on it nowhere, so they cut it up to see what the matter was with it. They found one o' your queer little holler bullets in its vitals. Must have been shot within half an hour of when it died, so it must have come straight from the

pasture side of where you fellers was gunnin', 'cause that's 'bout half an hour's sheep travel from the pen. Looks ter me 's if Zeke's got a clear case agin you fellers, an' by gosh, I'd rather 't be you than me. Say, why didn't you take a likelier chance, when it was 'way off, somewheres?"

John and I looked at each other, amazed.

"Well," said John, at last, "let's go over to see Zeke."

When we reached his house he greeted us pleasantly.

"I have just heard," said John, "that one of your sheep was shot, and that the bullet looks like one of mine."

"There it is," said Withington, producing it from his vest pocket. It certainly looked in every detail like one of John's.

"I do not know as you will believe me," said John, "but I hope you will. I did not shoot that sheep, nor did my friend. The first we knew of it was when we were told this morning. Neither of us did it, either accidentally or purposely, I pledge you my word of honor. Will you believe me?"

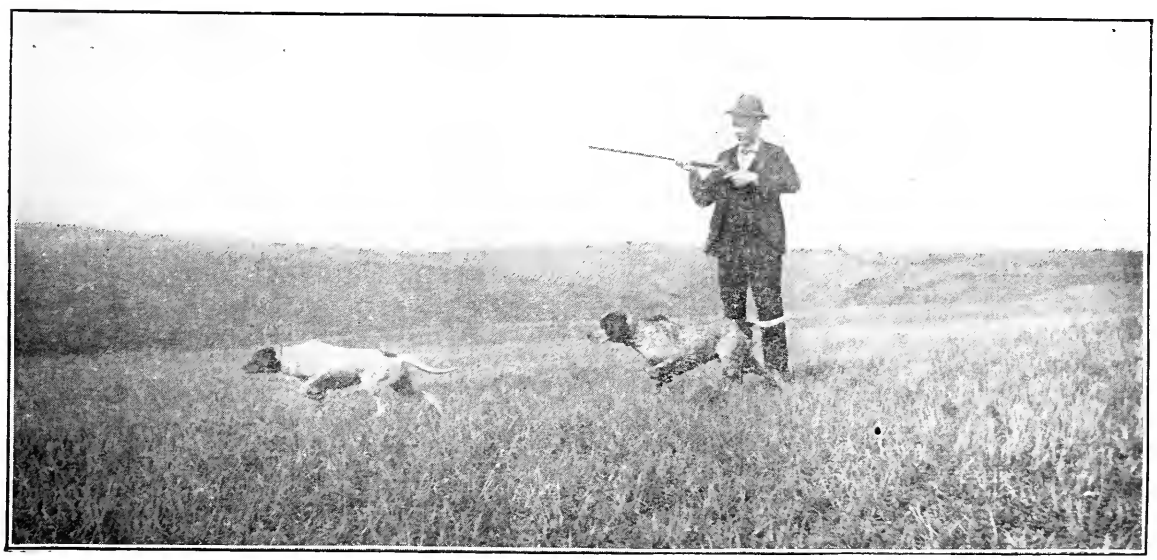
Withington chewed a straw, and did not look up or say anything for some time. Then he smiled rather pleasantly, and said:

"My wife said she didn't believe you did it on purpose."

He talked pleasantly, and bade us goodbye. We hardly knew what to think. On the train going home we talked the matter over continually. Surely, had Withington chosen to arrest us, we should have had to suffer on circumstantial evidence, for never was an innocent suspect convicted on a clearer case. First, Withington's counsel would mention to the jury the matter of prejudice. Our farmer was a bitter enemy to Withington, and never let a chance slip to say an ill word of him. We should naturally be prejudiced in the beginning. Then, there was probable cause, the ram's assault. Strongest evidence was the bullet, just like John's, never seen in that country before, none like it to be had anywhere near, except of John. Witnesses there were in plenty for Withington, not one for us.

"Well," said John, in conclusion, "either we shall yet feel the weight of his vengeance, or the leopard has changed his spots."

As time passed, and we were left in peace, we concluded that Withington felt we had done by him, in the matter of the ram, as we would be done by, so he had returned the good deed to us; but there is yet a mystery, and that is, who did shoot the sheep?



AMATEUR PHOTO BY E. C. THATCHER.

QUAILS IN THE STUBBLE.

Winner of 38th Prize in RECREATION's 6th Annual Photo Competition.

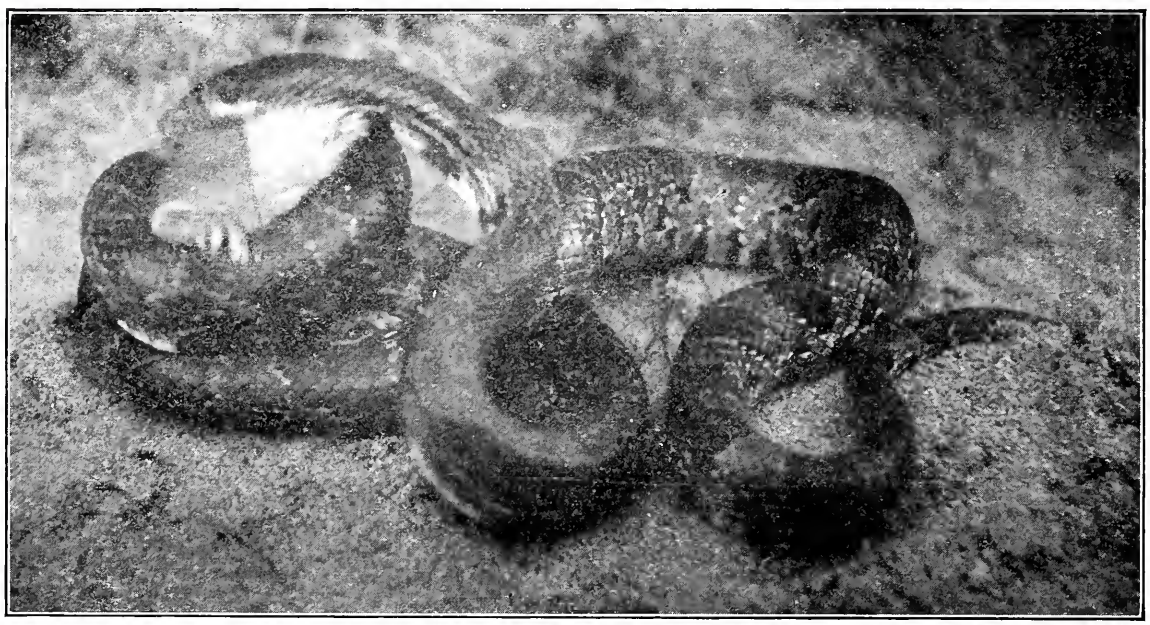
COLE.

C. E. PLEAS.

Not a big boa constrictor of the jungle story, but a little one, the hero of which is a beautiful red and dusky spotted fellow about 2 feet long. Scientists will better know him as *Coluber guttatus,* while his common name varies in different localities. Sometimes he is called spotted racer, and again house snake and chicken snake; but if you want to know his greatest aim in life, give him a mouse or a young rat.

I started to call him our pet, but as he never showed affection for anyone, nor preference for one person more than another, he is hardly entitled to that name. made a noticeable change in him, particularly just after a big meal, and we could almost see him grow. He drank about like a cow in manner, and almost as often.

We had a rat hunt in the barn one day, and Cole played the part of executioner. Among those caught were 9 young rats, about a third larger than house mice. As in the case of all other executions, a special place was prepared for this one. A shallow tray 16 x 18 inches, with a layer of clean sand in the bottom, was put in a public place, a few tufts of grass were placed around the edge, a glass cover was



AMATEUR PHOTO BY C. E. PLEAS.

A FULL MEAL.

Yet from the time he was taken captive in 1900 until given his liberty last spring, he was as quiet and gentle, when handled, as if he had been raised in captivity.

Our first meeting was down in the orchard one hot day in July. I was raking hay; he was asleep underneath. I took him in my hands and deposited him in a cage prepared for such a purpose in the barn. There he seemed fairly contented, and greedily took his food and water when offered. The old idea that snakes feed only once in 3 months has long since gone out of my mind. Possibly some do, but my observations are different. The supply, I believe, governs the time of feeding more than aught else.

Cole was about 16 inches long when captured, but it seemed that every mouse provided and the next thing was the audience.

A camera with its wide angle eye was given the best view commanding the whole arena, and was supplied with plates on which to take notes. Cole was then placed in the arena, a rat turned in, and the performance began. The rat, of course frightened, had forgotten the old fable about snakes charming their prey, and was in too great a hurry to investigate Cole's mesmeric powers, running about as fast as it could, to find a way out.

From the way in which Cole gave pursuit one would judge that he had little intention to charm, and he caught the rat about as a bow legged man would catch a pig in an alley.

I can not describe the scene that fol-

lowed, it was done so quickly. The photograph "In Mortal Coil," made during the execution and published in June RECREATION, best illustrates it. The rat was held as shown until life was extinct, when the coils were slowly relaxed.

The remains were swallowed as shown in the accompanying illustration. The supply of rats held out longer than Cole's appetite, but his instinct to kill was so great that he continued to seize and squeeze until he had executed some of them several times over; the dead being made to appear alive by being poked with a thin wire. He would take dead rats in motion, but never lying still.

Cole was given his liberty this spring, in hopes that he would remain about the barn and catch rats, but he proved ungrateful, for he disappeared at once and has not since been seen.

Single specimens of this kind have been found measuring over 4 feet in length. They appear to be semi-domestic in their tastes, being frequently found making themselves at home in some dwelling, where, though innocent of harmful intent, they are likely to cause consternation among those who are not acquainted with their habits.

One of these snakes innocently deprived me of an interesting photo in the fall of '98. About 1,000 swifts had taken temporary lodging in one of our chimneys. At sundown they swarmed around and dropped into the chimney in a black stream. We counted several hundred, one evening, after they had been going in for half an hour, and we thought what an interesting picture that would make; so the next day I set the camera on the roof in good time and waited. Dark came, but no birds, save one or 2 stragglers that flitted by. Mrs. Pleas had that day stepped on a big *Coluber* in the room by the fireplace, and on examination it was found to contain 2 of the birds.

Thus our disappointment was explained.

AMATEUR PHOTO BY WM. H. FISHER.

HIGH AND DRY.

FERRUGINOUS ROUGH-LEG HAWK. *ARCHIBUTEO FERRUGINEUS.*

A DEER HUNT IN LOST PARK.

H. J. L. BARNES.

In August, 1898, I left my home at Glenwood Springs, Colo., for a hunt on White river, a fine trout stream, 40 miles North of Glenwood. All I took with me was a frying pan, 25 pounds of flour, a little salt, pepper, coffee and sugar, my rifle and fishing rod, and one blanket besides my saddle blanket.

The first night I reached Mud Springs, and by noon next day was on White river. The second night I spent at Marvine creek, where I caught a mess of trout for supper and breakfast. The following night I camped at the end of the wagon road on the North Fork of White river, just at the mouth of Lost creek. At 5 a. m. I was 3 miles farther up North Fork and began fishing. By noon I had a creel full of trout, among them one rainbow weighing 5½ pounds.

Next morning I took my rifle, a 25-20 Winchester, and set out for Lost Park. I had not gone far before I came on a doe and 2 fawns. I did not fire at them, because in Colorado it is against the law to shoot anything without horns. A little later I saw a bunch of 4 deer, 3 bucks and a doe. When I opened fire I had 15 shots in my Winchester; after the deer had skipped I could find only 6 cartridges in the gun. The rest were not in the deer either.

Feeling pretty sore over such shooting, I pushed ahead. As I rounded a bend I saw 2 bucks in a clump of small trees. They were fully 300 yards away, and I raised the sight to the proper notch before I fired.

At the report the buck farthest from me dropped; the other remained motionless. With careful aim I fired twice at the standing deer. Then I raised the sight for 400 yards and tried again, with no result. He must be clean out of range, I thought, and began creeping nearer. Not until I was within 100 yards did I discover I had been shooting at a rock. Where I had seen a buck fall I found tracks leading down the other side of the ridge. There was no blood, however, and I did not think it worth while to follow.

Late in the day I ran on to a pair of elks, but elks are protected here and I had to let them go. Well, thought I, fishing is my best chance; I'll go back and fish. Just as I crossed Lost creek a 6-point buck rose from behind a log not 15 steps from me. The Winchester cracked and the buck went down, shot through the stomach. In an instant he was on his feet again and off down the creek. Two shots followed him, but with no result. I put spurs to my horse, and after a chase of 3 miles got another shot as the buck was about to recross the creek. That time he went down to stay. I jumped from my horse, drew my knife, and in a minute was at the side of a 280-pound buck. He was still breathing, and when the knife point touched his throat he made one last effort to regain his feet, knocking me backward into the creek.

I had to dress him on the ground as he was much too heavy for a boy of 15 to lift. I got him dressed at last, and then came the question of how to get my game to camp. It occurred to me that I might float him down the creek. I tied a rope around the deer's neck and dragged it into the creek. It was hard work dodging rocks and stumps, but the worst of all was when I came to a fall. It would never do to let the deer go over it. I went back after the horse, took him down and backed him under the fall. Then I eased away the rope that held the deer above until the carcass came down on the horse, where I managed to tie it. It was midnight before I reached camp, tired, wet and hungry.

I remained in Lost park 18 days, hunting and fishing. In that time I shot 2 deer, 1 antelope, 1 wolf, 1 wildcat, 1 fox, 2 coyotes, 38 grouse and 19 rabbits. I also caught 81 trout, weighing over 60 pounds. The trip, including ammunition and fishing tackle, cost me only $5.90.

General: "And did your men run away?"

"Sir! His Majesty's 2,781st Lowlanders NEVER run away! We surrendered, sir!"
—Life.

TWENTY-ONE GRIZZLIES IN SIGHT.

W. H. WRIGHT.

A chance conversation between Mr. Coleman, of New York, Dr. Penfield and me, led to an impromptu bear hunt in which the hunters came off second best, though game was more than abundant. During the trip 21 grizzlies were seen; also the tracks of scores of others, some of the footprints measuring 8½ x 12 inches.

I had heard of a place in British Columbia where bears were found in droves. On my speaking of it, we agreed that we 3 would visit the region provided we could start at once, the time at the doctor's disposal being limited to 10 days. Accordingly we left on an early train the next morning, and 2 days later found ourselves within 20 miles of the bear country. The remainder of the journey had to be made with pack horses.

It was early for bears to be out, as the snow was still deep, and we were advised to remain in town a few days at least; but as we had good tents, stoves, etc., we decided to push on as far as possible and then wait until the snow settled enough to permit farther progress. This we did, hiring a man and 5 horses to pack our outfit while we walked. Our trail was an old prospectors' path leading over the steepest and most difficult hills. No one had traveled it since the year before, and there was much down timber to be cut.

We struck the trail at 3 p. m. and followed it 11 miles. The last 2 or 3 miles we made by pounding down and plowing through soft snow 3 to 4 feet deep. By that time we were all tired, hungry and cross, and being then on a little side hill free from snow and facing South, we concluded to wait a while. After sending back the man and the horses we proceeded to make camp, no easy thing in a country that fairly stands on end, and where there is hardly a bit of level ground large enough to play marbles on. We cut logs and boughs, drove stakes, skinned trees and at last got our 12 x 20 tent erected, but at a cruel cost to the timber of the Dominion.

The weather, which had been mild for a few days, became colder, with an occasional snow storm. We could do nothing beyond beating up and clearing the trail ahead in readiness for a move when the time came. This state of affairs continued 2 weeks and outlasted Dr. Penfield's patience and leave of absence. Early one morning he took the trail South, promising to try again another season.

His departure seemed to break the spell, for the next day warm weather began. Two days later, when the man and horses returned, we succeeded in reaching a little bottom 6 miles farther on, where we made our final camp. Just before getting there we saw our first grizzly track, evidently made the evening before.

The mountains are high, steep and hard to climb. Every half mile or so snow slides have left their mark, sweeping before them to the creek bottoms everything that offered resistance. These old slides are covered with bushes which, yielding before the onrushing snow, have been left to grow, slanting downward. This makes it next to impossible to get through them when going up, though one can slip down easily enough. Amid the bushes are little parklike patches covered with grass and a yellow lily having a bulb root. It is on grass and these lilies that the bears live. Emerging from their dens in spring, they make their way down to the foot of the lowest slides. As vegetation becomes older and tough they work up the steep and narrow canyons, following the snow. When they have reached the highest divide their bedtime has come again. If when they first come out the grass has not started, they nip the small and tender twigs of the bushes, which are mostly maple.

There is no game other than bears in that country, except on the high divides, where caribou are said to be plentiful. We saw none, however, nor even any tracks.

Hedgehogs were all too abundant; we never went out without seeing a dozen or more. They will eat anything at all salty, or that has been handled by man. At first we thought them cute, but changed our minds when they began to eat the tent and walk all over us while we lay asleep. Not a night passed that we did not have to get up once or oftener and knock the sawdust out of misguided hedgehogs that insisted on eating our shoes, hats and anything else we had neglected to hang on the tent pole.

There were many large timber wolves; we saw their tracks everywhere. A band came within 300 yards of camp. Following the trail the next day we saw where one had left the bunch. Out of curiosity we tracked the lone wolf and were led to a hole in a large cedar tree. The track went in and out. In the hole were 4 little black wolf pups, their eyes not yet open. We took them to camp and returned to watch for their dam. She did not return that

day or the next. When she did we heard of it, for no sooner did she miss her pups than she raised a howl, assisted apparently by all the wolves in the country, that made the hills ring. We tried to raise the kidnapped babies, feeding them condensed milk. Two died in a few days and the others lived but 2 weeks.

A day or so after moving camp we started out to round up some bears. Two miles back on the trail we came to a slide clear of snow and already green with grass. A half mile up the slide was an open space which we thought it well to investigate. We entered the gulch, through which ran a little stream, and climbed up. At the edge of the clearing I stopped and looked over the ground. Not 100 feet away stood the prettiest old grizzly I have ever seen. His head and shoulders were tawny; back of them he was white as snow. He was not eating, neither did he appear alarmed, but had altogether the air of a portly old gentleman looking over property with an eye to making a bid.

Without looking around I motioned for Coleman, and when he did not respond I turned and saw him some distance to the rear. Not until I made frantic gestures could I attract his attention. When, at last, he reached me the bear had vanished, having undoubtedly winded us. We followed him a mile or more; then as he kept persistently in thick brush, we gave it up.

Across the creek from camp was a high mountain with 3 large slides on the side facing us. Those we watched with glasses and there we saw our next bear. He was another overgrown old fellow, white all over. He appeared on a little lawn half a mile up the hill. Below him was a cliff some 500 feet high, which we would have to round in order to reach him. As it was late we decided to wait until morning and then go up and lay for him. It took us 3 hours to reach the place where we had seen him, and the ground was so steep and the brush so thick that we did not think it worth while to wait. Often after that we saw the old fellow from camp, but did not attempt another campaign against him.

By that time the snow was going in earnest, slides were frequent, and we confidently expected some real bear hunting. Every old slide contained one or more bears, some white, some brown, some half-and-half. We climbed hills, cut trails, felled foot-logs across creeks; but the bears still stuck to the side hills, ate grass, dug bulbs and minded us not at all. It would take us so long to get where we saw a bear that there was no chance for us. With a pack of dogs we could have cornered many. After goose-chasing those grizzlies 2 weeks we hung up our things, tied the tent door and walked 17 miles back to the lake. A man lived there who claimed to have killed many bears on our creek, and we asked him if there was any patented way of doing it. He said we should have baited them and then watched the bait. We had thought of doing that, but it seemed like taking an unfair advantage. However, Mr. Coleman wanted a bear and at last said he did not care how he got it.

We went on a few miles and found a man who had an old horse sick with the heaves. He was going to kill the poor beast to get rid of it, until he found there was a market for bear bait. There was an instant rally in equine values, but we finally closed a deal at $20 and started campward, leading our bait. Our progress was slow. About every 100 yards we had to stop 10 minutes while the old horse recovered his wind and composure. When we finally reached camp with our prize we felt that he fully deserved the death penalty.

A few miles above camp was a branch stream coming from a range of high, rough hills to the Eastward. There was no bottom land along it, the mountains running down to its very bank. There were slides along this creek half a mile wide at the base and extending far back into the mountains. There, we thought, would be the place for our bait, as bears could hardly miss it. We assisted the old horse to the first slide, roped him over the creek and killed him in a little open place near a cedar thicket. Across the creek, about 75 yards away, we built a blind, and cut every bush that could intercept our view of the bait. The blind was so arranged that we could approach it unseen.

We cut off the horse's head and dragged it a mile up stream to an old deadfall. Coleman was getting desperate and bound to have a bear one way or another. We fixed up the old trap, piling logs as big as we could lift around it to make sure bruin could not get the bait without being pinched.

Within 3 days a bear had found it. That we discovered one morning and the same afternoon we watched the bait from the blind. Next morning we again watched, returning to camp at 11. Coming back at 2 we found the bait gone. We had never seen bears around in midday; always before 11 or after 2. This fellow was the evident exception to the rule.

We found he had moved the bait to one side out of sight of the blind, eaten a hearty dinner and departed. Getting ropes we hauled the remains back and watched until dark. Next morning we were at the stand by daybreak. There had been nothing

doing over night. At 9 I returned to camp to do some cooking. Later I relieved Coleman. He came back at 4 and we both watched until dark.

Next morning the bait was gone. We recovered it and watched all day. For 5 days we pulled that horse one way and the bear pulled it the other. When there was nothing left but bones we piled them up, and congratulated ourselves on having had last move in the game. To be sure our ante was $20; but the bear earned it.

We decided to look at the trap, pack up and pull out. When we passed the stand Coleman looked for the bones. They were gone!

At the trap another surprise awaited us. A bear had carefully removed our logs, eaten our bait and gone on his way rejoicing.

We are going back next spring. Meantime we invite proposals from persons who think they have dogs smarter than those Selkirk grizzlies.

AMATEUR PHOTO BY C. M. HAY.

THANK YOU.

Winner of 34th Prize in RECREATION'S 6th Annual Photo Competition

MY BATTLE WITH A GREAT HORNED OWL.

F. G. E. BUERGER.

In September, 1901, business called me down to the Buffalo hills, of Arkansas, the outrunners of the Ozarks, or better, the Boston mountains. I had been led to believe that in the forests I should find deer, turkeys and smaller game, and that in the clear waters of the Buffalo the wily bass were only waiting for the man with rod and reel. Alas! the deer had been run out with hounds years ago, and as the result of giant powder the beautiful stream yelded so little that even the patience of the most ardent angler was overtaxed. Some quails and turkeys were reported and occasonaly a dog might jump a rabbit. That was all. The tapping of the yellowhammer was about the only sign of life, a welcome sound that broke the dead silence of the vast forest.

"Hit's only the varmits that's left," the natives told me. "Rabbits? Why, hit's the owls and red foxes that done away with them."

In consequence I hung up my Savage 30-30, my other guns and fishing tackle, and with a deep grudge against the foxes and owls, and especially against the 2-legged "varmits," my wife and I, with net and cyanide bottle, rambled, as of old, through the forest and beautiful valleys in search of coleoptera and lepidoptera, a tamer sport that that with rod and gun, but withal equally fascinating and undoubtedly a better and more satisfactory one.

St. Valentine's day came and with it the first snow of the season. Who could have stayed home on such a day?

"Bring me my Valentine," called my wife after me, with a dubious smile on her lips, as I stepped out into the brisk wintry air with my little 16 gauge Syracuse over my shoulder, and Nemo, my beagle pup, at my heels.

That day the unexpected happened. Scampering along over the snowclad hillside came bunnie, who had evidently lost his bearings, only to stop at the peremptory "halt" of my gun and to find his way into my alas, too roomy, game pocket. The rabbit was a measly, dyspeptic looking specimen, but a rabbit after all; and when, later in the day, I succeeded in bringing down a chicken hawk that soared high overhead, I felt once more the joy of the hunter, the fascination of sport. The hawk measured 4 feet 1 inch from tip to tip, and to-day looks down on us from his high pedestal in our den, much valued by my wife as her "Arkansas valentine."

Not many hundred yards from our house a rocky bluff arose about 100 feet in height, its summit crowned with evergreens and crooked oaks, whose gigantic silhouettes stood out clearly against the sky. The spot was extremely picturesque, and the many crevices in the rock afforded excellent hiding and nesting places for bats and owls. The hooting of the latter could be heard a long way in the stillness of the surroundings and, judging from the deep, sonorous tone of their voices, I concluded they were of the same large variety that caused the untimely death of Ernest T. Seton's Raggylug. I was to find out for myself soon after.

Snow had fallen all night, the heaviest snow in Arkansas for 17 years. A magnifiment sight met our eyes in the morning, and soon we were out with our camera among the white capped rocks and snow bent cedars to get a few pictures of the delightful landscape that stretched in all directions, glistening and glittering under the cold rays of the winter sun. The afternoon, too, was spent in the same fashion, to make the best of an opportunity so seldom offered under these skies, and it was not until the dying sun glided the tops of the mountains that we reached home, weary from our long and difficult tramp. I was about to take life easy the remainder of the evening, when, like a challenge, there came from the rocky hillside the deep, long-drawn hooo, hoo, hoo, hooo of the huge bird of darkness. The next minute found me climbing again, that time in the direction of the bluff. While I stood a moment panting and gazing, a pair of great horned owls arose from an overhanging rock and flew up on the crest of the hill. The distance from where I stood was too great to justify a wing shot, but I marked the place where the birds alighted and was about to commence the ascent of the hill, when one of the owls returned and made the highest branch of the dead oak tree, right on top of the precipice, his point of observation. Apparently not larger than a quail, the form of the bird stood out against the wintry sky. In order to get a better range, I cautiously began to advance, but the keen eyes of the owl had espied the enemy, and I knew that in a moment my prey would be gone. In an instant my gun was at my shoulder, and when the echo of the report rolled back from the hills, I saw with pride and joy the mighty bird hanging lifeless in the branches, only to roll, a moment later, down among the boulders.

Breathless and excited I reached the top of the cliff, but found that on account of the circuit I had been obliged to make,

I had lost my bearings. No trace of my game was to be seen. Every minute it grew darker, and had it not been for the whiteness of the snow, I should have been compelled to postpone my search until the next morning. The thought of it did not strike me favorably. My hunting passion was up and once more I pressed forward. That time success rewarded me. There, near the edge of the precipice, lay the owl, my game, apparently stiff and lifeless.

However, locating the bird and getting it were 2 different things. The ground was slippery, and the deep snow treacherous. One false step might hurl me down over the bluff. What should I do? Was the prize worth the risk? Was it not satisfaction enough to know that I had made a good shot? To all these questions there was only the same stubborn answer; "Get your game!" With the help of saplings and overhanging branches I slowly began the descent, feeling the ground step by step, until, half creeping, half sliding, I came near enough to reach for the coveted prize. Grasping a stout limb with my right hand and bracing my knee against the protruding rock, I succeeded in seizing, with my left hand, the owl's wing. Like lightning the bird swung around and buried his powerful talons in my hand. The attack was so unexpected and the pain so intense, that I came near losing my hold. The tables were turned; the hunted bird had taken the offensive. The yellow, malicious eyes glared at me as big as saucers, and the continual cracking of the sharp beak showed that my adversary meant fight. Handicapped in every way I instinctively tried to dash my enemy's head against the rocks, but he cleverly dodged time and again. My position was becoming more and more trying, hanging there, so to speak, in midair, struggling with a foe that stuck faster than glue. To regain my strength I tried to pause a few moments in our pass-at-arms, but the owl evidently did not believe in an armistice, and to make the situation clear to me he dealt me with his free wing such a vicious blow across my face, that I became totally blinded and dazed for a few moments.

What might have been the result of the fight had my enemy been in possession of his full strength, would be hard to tell. As it was, his wounds soon began to weaken him, his attacks grew fainter, and dashing him with all my strength against the boulder, I ended the life he had so bravely defended. I could but admire the pluck and gallant fight of the owl, and I wish I could have ended the struggle in a more sportsmanlike manner.

Worn out and bleeding, but exultant and proud, I reached home. The owl, a beauty, measured exactly 4½ feet from tip to tip, and was promptly mounted to remind me in days to come that under certain conditions the hunter of "small fry," too, may encounter a thrilling experience which he will remember with as much pride as his brother sportsman who can tell of hairbreadth escapes from mountain lions and grizzlies.

A MEMORY.

EDITH M. CHURCH.

A moon just over the hilltop,
  Shining so round and bright;
Fir trees that look like spectres,
  In the weird, uncertain light.

Night shadows upon the waters
  That stretch away to the shores;
Half way 'twixt light and shadows
  The fitful dip of oars.

A boat glides through the darkness,
  Then passes forever from sight,
Lost in the Past's great ocean,
  In its deep, mysterious night.

Will no vision come in the future,
  As we eagerly press to'ard the mark,
Of a boat that drifts through the shadows,
  And is lost again in the dark?

HOW THE QUAILS WERE PRESERVED.

DAVID BRUCE.

"I fed a little bunch of quails all winter," said my friend, the farmer, as I got into his buggy. He had asked me to go to his place with him to shoot a fox. He knew just where to find him, he said, for he had tracked him on the snow to a lot where a wagon load of cornstalks had been overturned, and fearful of disturbing him, had driven down for me. He said he had no confidence in his own shooting any more.

"Not but what my old gun would fetch him, if he was anywhere within 15 rods; but my eyesight aint so good as it was 20 years ago."

He had been all around the lot and was confident the fox hadn't left the cornfield, and he was sure we could have lots of fun. His shepherd dog would hunt better than half the hounds.

"You see," said he, "I've fed a little bunch of quails all winter. They come right to the barn and feed with the fowls. I like to see the little fellows. Lord! when I was a boy, what a lot I used to get, to be sure. I hadn't seen but one or 2 for years. This little knot was huddled up in the corner of my orchard fence during that big storm we had Christmas week, and I have fed 'em ever since. There were 8 at first, now there are only 7; but I mean to take care of 'em and see if they won't nest close by, for I'd like to see 'em common again. This pesky fox must be killed the first thing, or they won't have much chance. Blest if I don't think we are going to get another storm; when you see that long, dark, streak of cloud over old Ontario, you may be sure there's something a coming."

True enough, the sky looked threatening. I certainly should not have ventured out of my own accord, but it was not more than 2 miles from my house, and my friend had always been so good natured and liberal with the produce of his orchard and garden that I was glad to oblige him; so we went.

"Well, we will go to the house for a minute and see the missis, and have some cider and apples, and get the old gun."

This gun had done wonders in its day with the wild pigeons and golden plover, and, like Captain Cuttle's watch, was "ekalled by few, and excelled by none." It was a really handsome old single barrel, of Spanish make, I think. It had been neatly converted to a percussion lock, and was tenderly cared for and greatly valued by its owner, who was never tired of recounting its wonderful performances. His shooting yarns almost invariably ended thus: "I blazed away at 20 rods and the old gal made a clear sweep, for I killed the lot."

By the time we had crossed the big orchard and a narrow strip of woodland, the wind began to blow. It was past 3 o'clock, and there was every prospect of a big storm coming We hastened into the cornfield, though my friend's dog was loth to leave the woodland, which was thickly marked with rabbit tracks. The snow had fallen 2 days before and was nearly a foot deep. We had but just got over the fence when whish! came a furious snow storm.

"If we can get to the cornstalks and have a look around," said my companion, "we'll hurry back to the house, but we may have him yet."

"I told him to take the dog around the snow-covered mound of stalks, and I would be ready if our game started; but I hadn't much faith in the affair, and the snow storm was almost blinding by that time. He walked a few rods to the right of me with the dog. I heard a quick exclamation; up went his weapon. Bang! Yes; another laurel wreath for the old gun! There was a fluttering and struggling for a few seconds; a few feathers blew toward us. We looked at each other, and the old man cried:

"What in hell have I done? I thought I saw the fox's head and, blast my picture, I've shot the quails!"

Yes; he had. And the old gun, true to its traditions, had "killed the lot"!

"Is that the latest book you are reading, dear?"

"Oh, no! This book has been out since noon yesterday."—Ohio State Journal.

THE LESSER SCAUP.

ALLAN BROOKS.

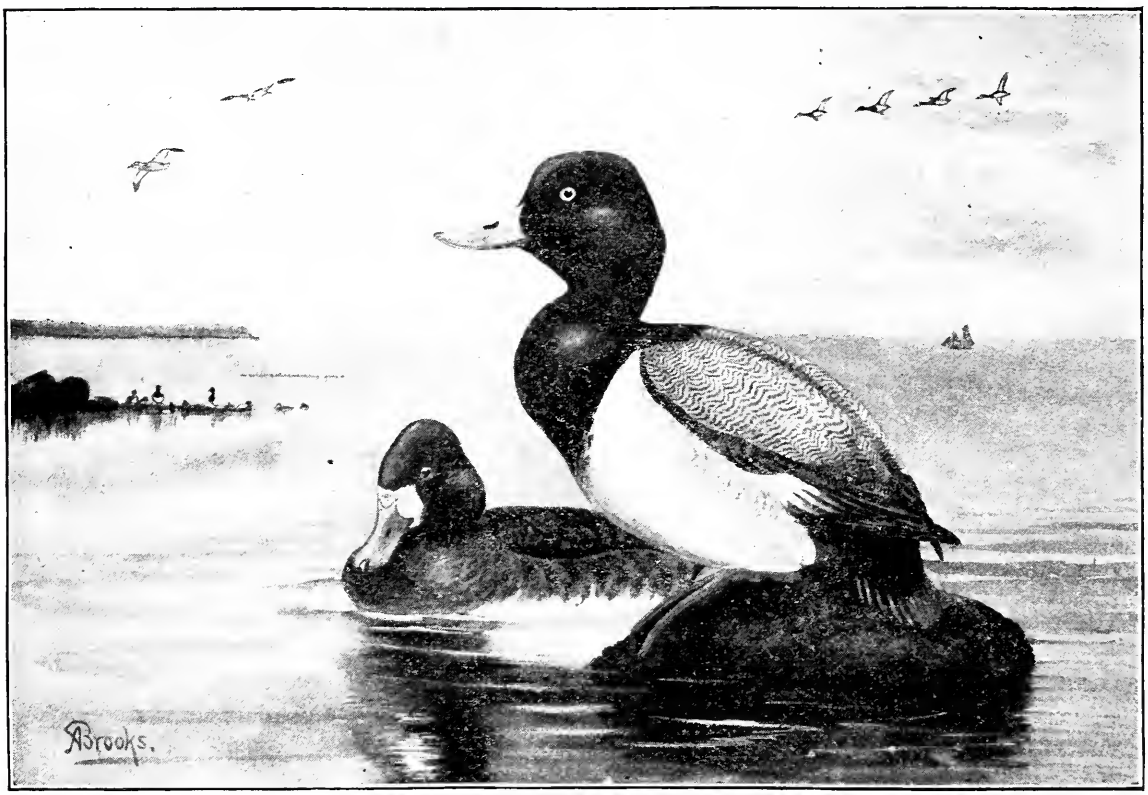
Few ducks are so closely allied as the 2 species of scaup, more generally known as blackheads or bluebills. When examples of both species are laid side by side, the much larger and broader bill of the greater scaup is conspicuous, as well as the larger size of the whole bird; but the infallible distinction between the 2 species is the pattern of the wing. In the larger species the white bar on the secondaries is continued on the outer webs of 6 of the primaries, or long flight feathers; while these are entirely grayish in the lesser scaup, the white being confined to the secondaries. Even in flight this will serve to distinguish the lesser scaup. The white wing bar of the greater scaup appears to extend nearly the whole length of the wing.

The head of the adult male is glossed with violet in the lesser and green in the greater scaup, but really perfect specimens showing this character to good advantage are seldom seen, especially in fall, when most duck shooting is done.

The lesser scaup is found throughout North America, except, perhaps, the extreme Northern rim of the Continent. It has a decidedly more Southern range in the breeding season than its larger relative, breeding West of the Rockies, as far South as latitude 52 degrees.

In habits the 2 are much alike, though the smaller species shows a decided preference for smaller bodies of water, more often being found on fresh water lakes and ponds than on the sea coast and estuaries. Scaup prefer to seek their food in water about 10 feet deep, though capable of reaching the bottom at much greater depths. As a rule, they do most of their feeding in the daytime, resting toward night in large, densely packed flocks, generally known as rafts or beds; but where frequenting salt water they feed according to the tides. In the gray of the morning they are especially active and noisy. The cry of both species is very like the long drawn meow of a kitten. They also utter a harsh croak.

The lesser scaup is a late breeder, laying its eggs in some tussock of marsh grass close to the water, late in June, when its congeners, the canvasbacks and



THE LESSER SCAUP. *AYTHYA AFFINIS.*

ringbills, have their broods hatched out. The downy young are much darker than those of the canvasback or the ringbill, being almost uniform dusky olive above, with little trace of the light colored spots so conspicuous in most ducklings.

Two or 3 mother scaups will sometimes pool their interests. I once observed 41 ducklings led by one mother, while the other 3 herded them in the rear, whipping in the stragglers. Like most diving ducks, the young at first get all their food from the surface, picking up flies, larvæ, etc., with incredible quickness. The young of the ruddy duck are the only ones I have noticed diving for their food.

The iris of the adult male lesser scaup is yellow; bill pale leaden blue. In the female the iris is yellowish brown, bill varying from dark grayish to leaden blue. The feet are plumbeous, with dusky joints and webs in both sexes.

SONG OF THE ROBIN.

REV. R. S. STRINGFELLOW.

Cheer up! Cheer up! Cherries are ripe! cheer up!
High on the topmost boughs we will sup
And we'll drink the red wine from nature's sweet cup,
For cherries are ripe! cheer up! cheer up!

Cheer up! cheer up! The day lulls to rest,
The sunlight fades in the clouds of the West,
My mate and my little ones sleep in their nest.
Cheer up! cheer up! cherries are ripe! cheer up!

Cherries are ripe! Cheer up! No trouble to borrow,
For God will care for the things of to-morrow.
He brings the sweet cherries and cares for us all;
Without His fond care not a robin shall fall.
Cheer up! cheer up! cherries are ripe! cheer up!

The clouds of the evening have fled with their gold,
The echoes are still from the chimes that were tolled,
My little ones sleep all safe in their nest,
Under sheltering wings and my little mate's breast.
Cheer up! cheer up! cherries are ripe! cheer up!

Cheer up! for to-morrow will soon be here.
Never fear, the God of all Nature is watching us near;
Swift banners of light will soon be unfurled,
And again I shall sing to God and the world.
Cheer up! cheer up! cherries are ripe! cheer up!

So early and late my song is to all,
Through spring and through summer till snow flakes shall fall;
Then far to the South my flight I shall wing,
And to others in distant lands I will sing
Cheer up! cheer up! cherries are ripe! cheer up!

"It's an A1 display," said Mr. Pitt, at the dog show.

"It's a first class exhibition," replied Mr. Penn, "but you have the wrong number."

"How so?"

"Instead of A1 it is K9."

—The Dog Fanciers' Gazette.

AMATEUR PHOTO BY OLIVER LIPPINCOTT

YOSEMITE CREEK NEAR THE FALLS.
Snap shot in dense woods with Plastigmat F6. 8 Lens.

AN IDEAL VACATION.

C. H. DILLON.

One soft, balmy morning in early spring my chum and I started for our annual week with nature. By sunrise we were within 20 miles of our destination. A fox squirrel, out for his breakfast and an early morning frolic, scampered along a rail fence and vanished like a streak of dull red into his castle. About 3 p. m. we reached the camp ground, on the bank of the Lamine river. A heavily wooded point ran out into the river, and in a natural clearing in the center we pitched our tent.

After everything was made snug for the night, fire wood up and horses attended to, Dan left me to the pleasant task of cooking supper while he went fishing. While busying myself about the camp I heard a squirrel barking. I got the gun and after a half hour's walk succeeded in getting 3 squirrels.

Returning to camp I had nearly finished broiling them when Dan came in with 4 large bass. We had a glorious supper, which suited our appetites exactly. About 9 o'clock we turned in, to be lulled to sleep by the voice of the creek.

After breakfast next morning we both left camp and went to the place where Dan had had such luck the evening before. We caught a few small fry of bass and crappie and as I made my last cast, the fly was taken by a bass. Forty yards of line were whirred off at once. Finally, after 20 minutes of hard work, I landed him, a small mouth, of 5 pounds.

That was enough for one day, so we went back to camp for lunch. In the afternoon we took the guns and hunted along the river, getting 4 grey squirrels and a woodcock. We broiled 2 of the squirrels which, with some hoe cake and coffee, made a repast fit for a king. Again the pipe and the night sounds, sleep and dreams.

Small bass that we could not use that day we put in a little pool in a spring-branch near. In the night we heard a commotion in the little pool and discovered, too late, that minks had eaten all our fish,* so our breakfast would be fishless.

The next day was not so beautiful. At 7 o'clock a thunder storm broke, deluging everything and raising the river so that fishing for the rest of the day was out of the question. However, we went out in the afternoon and killed 2 more squirrels for supper. That night we again slept well. The next day was bright and clear and the prospects were good for fishing. During the day we caught 14 small mouth bass and crappies and 2 channel cats.

Next day we returned, arriving home about sunset, to resume the stern realities of life.

* This incident is almost identical with one described in "The Minks' Festival," published in December, 1899, RECREATION.—EDITOR.

THE THINGS I LOVE.

W. S. JONES.

I love the woods; its solitude
My senses holds with silent charm;
There soft winds sigh, and song birds fly
From tree to tree, secure from harm.

I love the lake, its murmurs wake
A happiness within my breast;
Its low, sweet song blots out the wrong
That warps the soul with vague unrest.

I love the flowers, and bless the hours
That I have passed with them, alone;
Their sweet perfume and brilliant bloom
In mem'ry cling, when years have flown.

I love a heart that does its part
With quiet, unassuming grace.
I love the streams, the sun's bright beams,
Sweet smiles upon fair Nature's face.

I love the sway of friendship's day,
Its ne'er to be forgotten hours,
And musing sweet, when mem'ries meet;
All these I love, for they are ours.

WHERE BASS ABOUND.

J. A. BOZMAN.

A party of my friends, summering at Lake Minnetonka wrote so enthusiastically about the good time they were

FROM MINNESOTA WATERS.

having that I determined to visit them I gathered up bag, baggage and fishing tackle and took the first train heading Northwest. Two days and nights of riding took me to Excelsior, on the lake.

My friends had arranged for a day with the bass, and to that end had engaged a steam yacht, together with a yawl and expert boatmen. Early the next morning we were aboard the yacht, headed for the upper lake, 18 miles distant, towing the yawl behind us. Our boatmen had provided 12 dozen frogs for bait. We arrived at the fishing ground about 9 o'clock, rigged our tackle and committed sundry unfortunate frogs to the mercy of their finny admirers. Black bass and pickerel jumped fairly out of the water in their eagerness to swallow those poor little croakers. By noon we had 48 fish.

Then we ate lunch on a little island near, and lounged on the rocks and sand. From 2 to 5 we fished again. We did not count our afternoon catch, but after reaching the hotel found we had 98 beautiful black bass, weighing in all 210 pounds. They were taken within' 6 hours by my friends, Mr. Martin and Mr. Reed, and me.

You apparently do not know that 210 pounds of fish is at least 3 times the quantity any 3 decent men should take in one day. You have displayed your bristles by loading your boat in this way and then boasting of it. I trust that if you are ever lucky enough to go where fish are plentiful again, you will stop when you get enough.—EDITOR.

Every day 13 million kind hearted girls sit down to the piano without a thought of the misery they are about to inflict.—Life.

"New York is a great city for a military parade."

"Why so?"

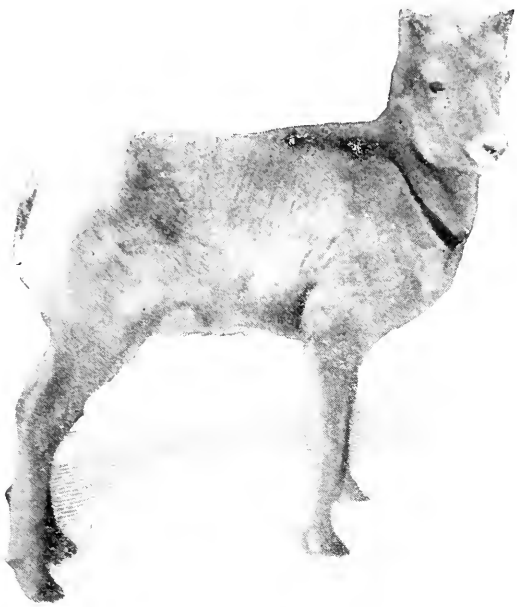
"There's hardly a street in which troops couldn't fall in."—Yonkers Statesman.

A MOUNTAIN SHEEP IN DOMESTICATION.

MOWRY BATES.

Photos by the Writer.

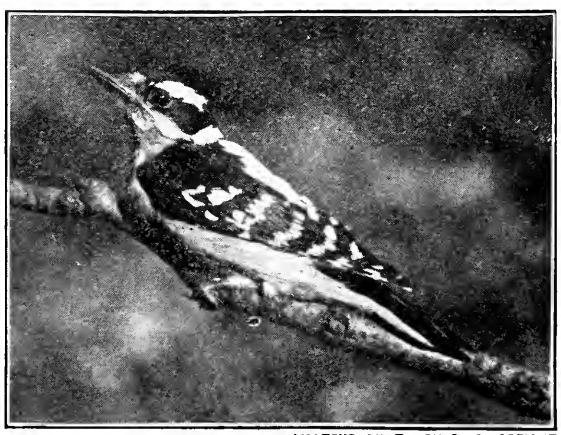
Enclosed find 2 photos of a young mountain sheep taken at Ouray, Colorado. This sheep is about 8 months old, and was found nearly dead when a few days old.



A HEALTHY BABY.

GROWING.

It was raised on a bottle, and is now of good size and healthy. It has perfect freedom, but prefers to stay at home instead of going to the hills.



AMATEUR PHOTO BY C. C. SPEIGHT.

HAIRY WOODPECKER.

Winner of 35th Prize in RECREATION'S 6th Annual Photo Competition.

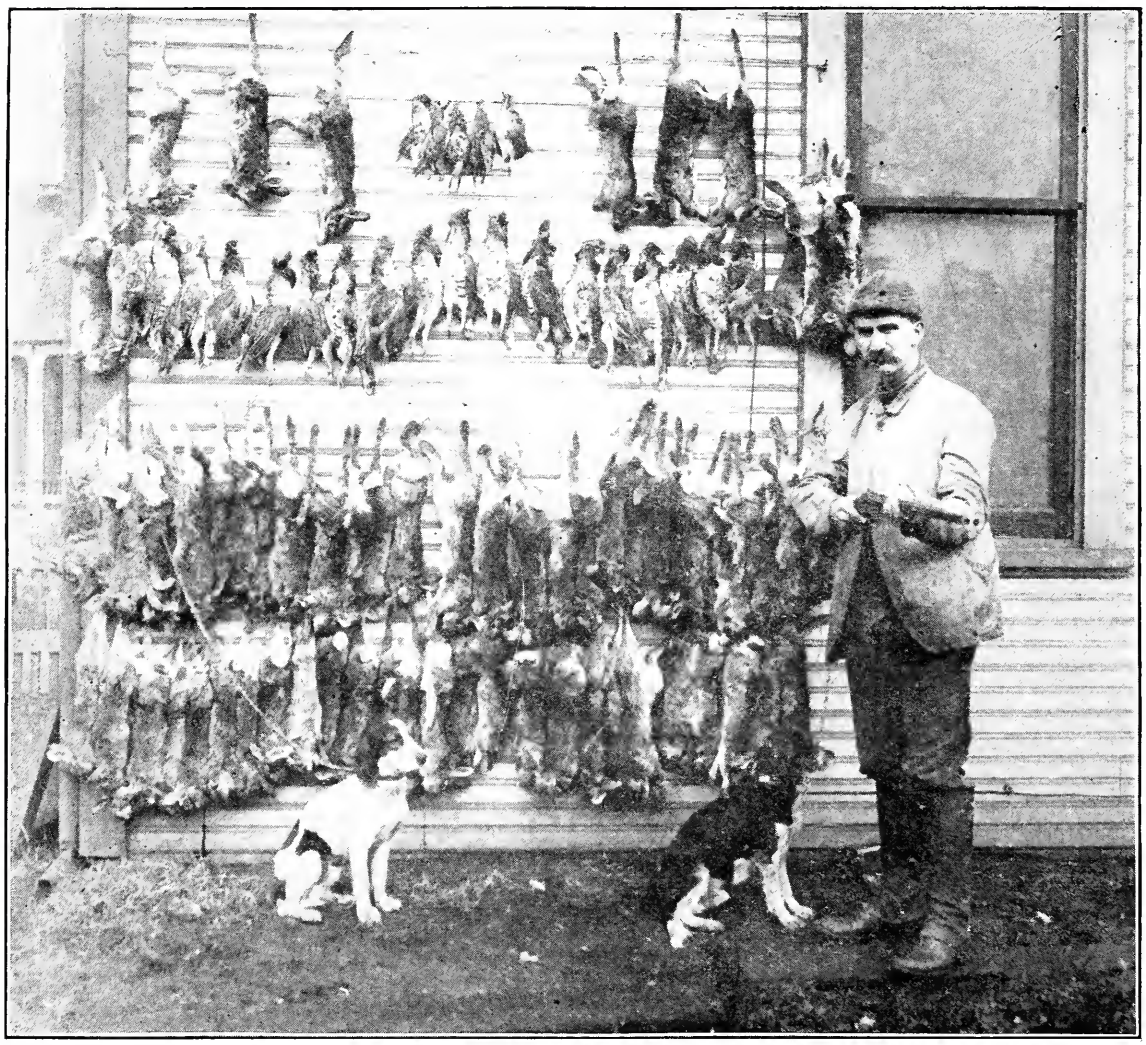
A DRUGGIST IN THE PEN.

This photo was given me by the man whose mug is shown beside the dead bodies of his 96 victims. His name is B. C. Newlon, a druggist of this town. In 4 days he killed 73 rabbits, 18 grouse and 5 quails and said if it had not rained all of one day he could have done better. Is he not worse than a hog?

K. C. M., Sharpsburg, Pa.

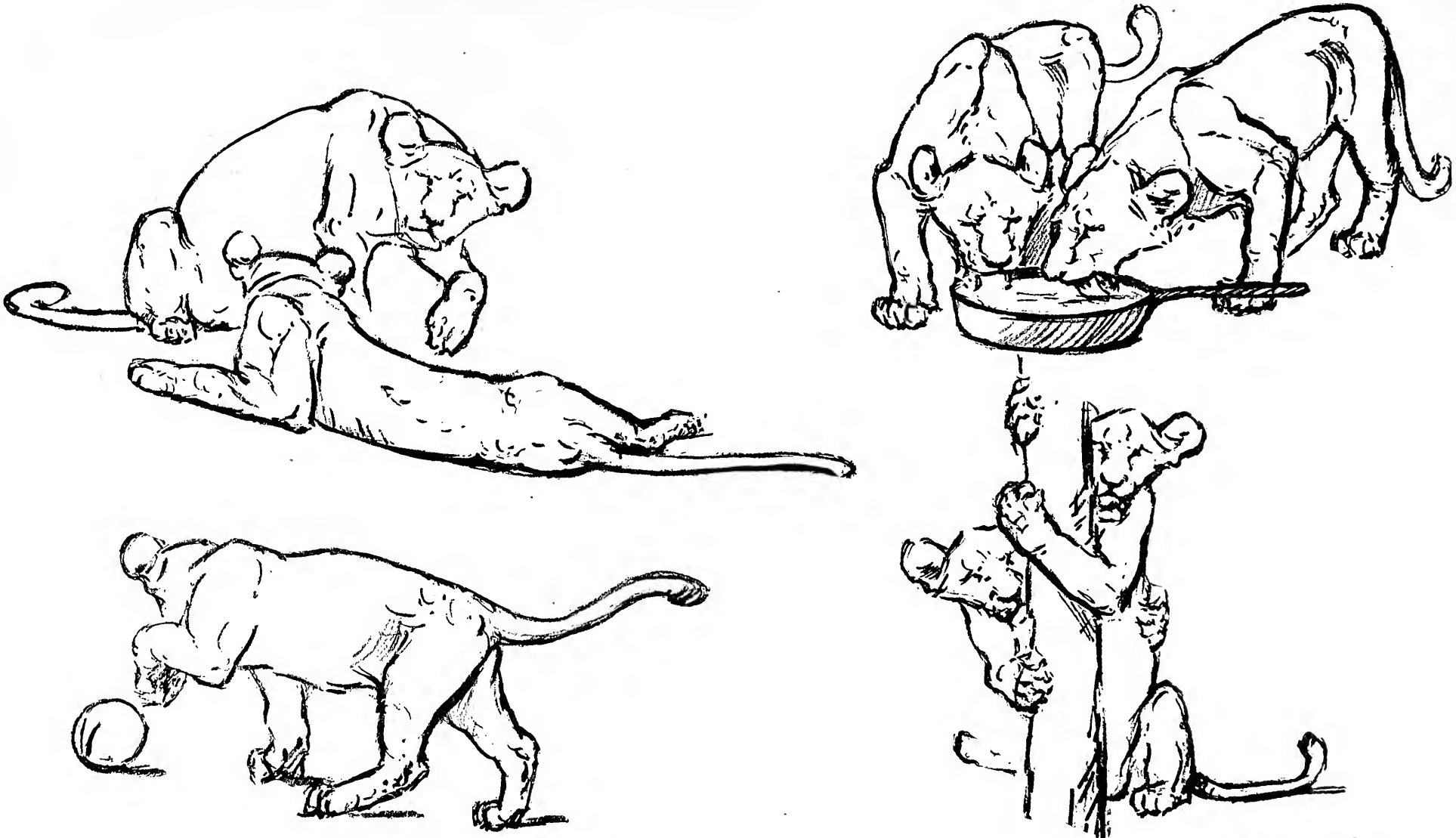
ANSWER.

Yes, he is meaner than any 4 legged hog that ever lived. I often wish, when I get such pictures as this, that the whipping post could be revived as a remedy for such bloodthirsty butchery as this man committed. Even Newlon's own dogs look as if they were ashamed of him, and I don't wonder. They ought to be.—EDITOR.

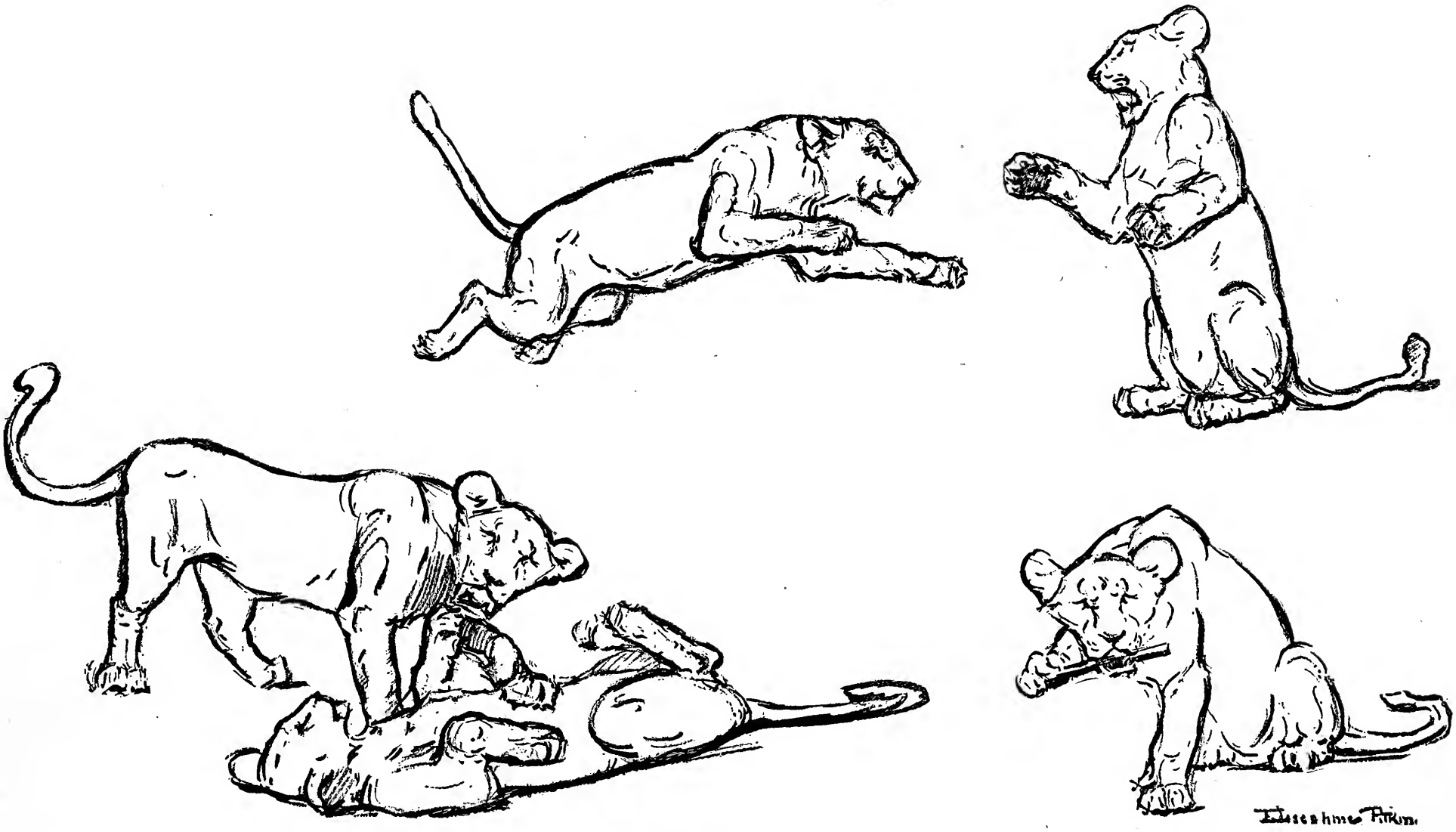


A SHARPSBURG RAZORBACK

Half a loaf is better than no vacation.



TIGER KITTENS AT PLAY.



MORE PLAY.

PLAYING OVER-TIME.

Josephine Perkins

TO IMPROVE THE SERVICE IN YELLOWSTONE PARK.

E. V. WILCOX.

The establishment and maintenance of the Yellowstone Park are commonly supposed to be for sentimental and æsthetic reasons strictly. The country included in its boundaries is not open to settlement or for economic use, and only 2 or 3 men have retained holdings within this region, in a semi-private capacity. It seems, therefore, reasonable to expect that this, perhaps the most interesting park in the United States, should be managed in such a way as to preserve its timber, game, and natural wonders in as nearly their present condition as possible. It is necessary, in order that tourists may be able to visit the different parts of the Park conveniently, to build roads, which are suitable for wagons, to all parts of the Park which are of especial interest. At present the roads which may be said to be maintained in good condition simply cover the route along which the Yellowstone Park Transportation Company wishes to carry its passengers. This route includes merely 4 or 5 of the chief points of interest in the Park, namely, Mammoth Hot Springs, Norris Geyser basin, the Lower and Upper Geyser basins, Yellowstone lake, and the Canyon. If for any reason one desires to travel in other parts of the Park it is found extremely difficult to do so with a wagon. The road from Soda Butte to Yancey's is as rocky and as sidling as any road in the mountains, and the bridge across Lamar river, just below Soda Butte, is in a dilapidated and dangerous condition. This portion of the Park is possessed of much interest to tourists. The antelope along the Lamar river are as numerous and as tame as in any other part of the Park. The fossil forest and Big Specimen ridge are in themselves of sufficient interest to attract tourists. While it is true that the Transportation Company allows only 5½ days for their trip in the Park, and therefore can not travel over longer distances than the present improved roads, there are others to be considered besides the tourists who patronize this company. Of the 10,500 tourists who visited the Park during the past season, over 4,000 traveled by means of private conveyances, and a considerable number of such tourists entered the Park by Soda Butte, Snake river, and Riverside stations. None of these roads are in the condition in which they should be, until the tourist reaches the regular circuit, around which the Transportation Company travels. The tourists who visit the Park in private conveyances are not subject to the regulations of any transportation company, and they travel where they desire. In justice to this large body of tourists the roads which lead to other points of interest in the Park, aside from the chief features of this region, should be improved so that those points may be reached in safety.

One of the purposes for which the Park was established is the protection of game within its borders. Nearly all species of game within the Park are at present increasing in number, and this is a sufficient evidence that the protection afforded by the Park is more or less effective. Poaching occurs, however, every year, and may be carried on with comparative safety. It is absolutely impossible for 2 scouts to patrol 3,600 square miles of mountain country in summer, when the conditions of travel are best, much less in winter, when the whole country is deeply covered with snow. There are many trails which permit an easy entrance into the Park on all sides by means of pack trains, and these entrances can not possibly be guarded by 2 men. It is not practicable to impose the duties of scout on the soldiers of the Park, for several reasons. The soldiers do not remain any great length of time in the Park, and do not become thoroughly acquainted with the various trails by which hunters may enter. They are, moreover, as a rule, not satisfactory scouts, and do not understand the habits of game to an extent which would make it possible for them to locate the large bodies of game at different seasons of the year. Hunters may enter the Park by various trails on the North as well as by the road from Cooke City. On the West they may readily gain entrance by Miller Creek trail, leading from the Hoodoos, or by means of the trail from the North Fork of Stinking Water. On the South they may enter along the Yellowstone river, Snake river, and by trails at the Southwest corner of the Park. On the West there are several entrances, the most important being by the Madison and Gallatin rivers. It is manifestly impossible for 2 men to guard all these entrances. Hunters may enter by one trail, remain in the park 2 or 3 weeks, and escape with their game without the possibility of the scouts learning of their presence in the Park. At least 15 or 20 experienced mountaineers should be employed as scouts for the protection of game during the fall and winter months. At other seasons of the year a smaller number will be required.

Excellent grass is found in the valleys

of the larger rivers in the Park, and these valleys, including the famous Hayden valley, serve as the winter range for the big game which remains in the Park during the year. The protection of game in the Park requires that all this grass be left standing in order to furnish winter range for the game. It would naturally be expected that such would be the case. On the contrary, however, one can not help noticing throughout the Park that in all the meadows along river valleys the grass is cut for hay. Haying operations were in progress during the season of 1901 along the Yellowstone and a number of its tributaries, in Madison valley, Hayden valley, and a number of other localities. It was stated that this hay was being cut for the horses of the soldiers and of the Transportation Company. With regard to the soldiers' horses and the Government mules located in the Park, it seems almost ridiculous that an attempt should be made to practice economy by destroying the winter range of the game. The small quantity of hay which is required by the domestic animals belonging to the Government in the Park could easily be fed with hay bought in the open market and shipped to Cinnabar. From that point it could readily be freighted to the different stations where it might be required. The labor involved in cutting the hay and hauling it out of the valleys in the Park from which it is cut is great, and the quality of the hay is by no means so good as that which would be obtained in any market. It is not likely that anything is really saved, from a financial standpoint, by cutting the grass in the Park and depriving the game of their natural winter range. Why the Transportation Company should be given the privilege of cutting hay in the Park it is impossible to understand. This company has the most valuable franchise within the Yellowstone Park, and they can afford to pay for hay. The Yellowstone Park should be maintained for the pleasure of the citizens of the United States, not for the profit of the Transportation Company.

No mountain scenery, however great its original beauty, can fail to give an impression of desolation and barrenness when the timber is burned off. It is unfortunately true that the present arrangement for protection from fires in the Yellowstone Park is utterly inadequate. Fires occur within the Park as extensive and as disastrous as any of those which devastate the forests outside of the boundaries. These fires occur every year, and their results are in evidence in every part of the Park. Around Mammoth Hot Springs nearly all the good timber has been destroyed, and the result is an indescribable appearance of barrenness in this naturally beautiful locality. During the past season 3 forest fires occurred in the Park, 2 of which were the direct result of unextinguished camp fires. The other was from lightning, and was of only slight importance. One fire burned for a month, and destroyed enormous quantities of standing timber; while the other, which took rise in a camp fire, burned several square miles of good timber in the neighborhood of the Upper Geyer basin. It is evidently impossible for the soldiers to patrol the camping grounds in such a manner as to prevent these costly accidents. In fact, it may be doubted whether the duties of fire wardens should be imposed on the soldiers. This is not supposed to be a part of the work of soldiers, and they are not required to be especially fitted for this duty. Their patrol duties simply require them to ride from one station half way to the next station, where they meet the other patrol. They start out on their patrol in the morning, but not sufficiently early to inspect the camp grounds before the camping parties have moved on. These parties usually move very early in the morning, and of course travel in different directions. When the soldiers arrive on a camping ground and find a camp fire not properly extinguished, it is usually impossible to fix the responsibility in the case, for the reason that there is no evidence for identifying the offending party. If regular fire wardens were maintained in connection with the Park service it should be the duty of these men to visit camping grounds before the camping parties have left and see that camp fires are properly extinguished. In the evening they should visit the camping grounds and prevent fires being built too near standing timber or in connection with large dry logs. It would not require any large force to patrol the camping grounds in a thoroughly satisfactory and effective manner and thus avoid the tremendous destruction of timber which annually occurs within the Park. It thus appears that slight additions to the force of scouts and the establishment of a small force of fire wardens would, at a small cost, protect the Yellowstone Park against the greatest dangers to which it is at present subjected.

Why not present several of your friends each a year's subscription to RECREATION? They would thank you for it 12 times.

SHERIFF McFEE'S BIG BASS.

C. C. HASKINS.

Old Sheriff McFee was of fishing quite fond,
In lake or in brooklet, in river or pond,
And down at the tavern big yarns he would spin
But the fish being absent, his stories seemed thin
To Jonathan D., who said, says he,
"I don't take no stock in old Sheriff McFee."

Now Sheriff McFee of his tackle was proud
And boasting its virtues he spoke long and loud;
"Two hooks back to back are the catchers for me,"
Says the toothless old sheriff. "Oh! fiddle-de-de,"
Says Jonathan D. "Why don't he use three?
I don't want no hooks of old Sheriff McFee."

Once Sheriff McFee, after fishing all day,
Sneaked home through the alleys and every by-way,
For fear of the roast from the boys, don't you see;
When crossing his path there was Jonathan D.
"Ah! what luck to-day, sir, how many?" says he,
"Is that all you've got, sir?" says Jonathan D.

Says Sheriff McFee, "Yes, it has a bad look,
But a 7 pound bass carried off my best hook.
Up there by the willows, at Davis's dam,
He looked when he jumped like a 20 pound ham."
Says Jonathan D., "He's a wonder," says he,
"I'd jest like to catch him," says Jonathan D.

Now Jonathan D. e're the sun broke his nap
Went down the next morning to catch the big chap,
And silently baiting he made a sly cast,
When quicker than winking he had a fish fast.
Says Jonathan D., "So I've got you," says he,
"I'd like if the sheriff was jest here to see."

When Jonathan D. brought his fish to the land,
The language he used you can well understand
When I tell you his prize weighed a pound, just about,
And instead of a bass it was just a bull pout.
And Jonathan D. said, "I snummy," says he,
"That's the funniest bass that I ever did see."

And fast in its muzzle when Jonathan looked,
He saw where the sheriff the same fish had hooked;
For his "very best hook that the world ever saw,"
With a bit of the leader, was stuck in its jaw.
And Jonathan shouted, while dancing in glee,
"We'll have this bass stuffed as a roast for McFee."

Now Jonathan D. has a bar down in town,
And wishing to add to the sheriff's renown,
The fish when set up bore this legend, you see,
"A 7 pound bass weighed by Sheriff McFee."
And Jonathan he told the story to me
Of this fish that was weighed by the scales of McFee.

"So the President is the servant of the people, eh?" said the man from a foreign land. "It seems to me you treat him with a great deal of respect and consideration for a servant."

"Huh!" scornfully retorted the native born. "I guess you never lived in the suburbs."—Puck.

FROM THE GAME FIELDS.

The man who quits when he gets enough, with plenty of game still in sight, is a real sportsman.

HANDWERKER DISGRACES HIS CLUB.

Tunica, Miss.

Editor RECREATION:

If you have room in your roasting pan and some red hot grease, it will be a kindness toward the good citizens of Tunica county, Mississippi, if you will dump into said pan and grease one J. G. Handwerker, of Memphis, Tennessee. It is possible you will have to trim off a few bristles with your hatchet before he will go into the oven, but his case demands heroic treatment, especially as he is president of a gun club. His last offense againt humanity and the dumb creation was the killing of 135 ducks in one day.

Did he load the product of his slaughter on the train and sneak off home after this bloody day's work? No! There were 27 ducks left, so he remained over night and completed the work of annihilation the next morning.

The one redeeming feature in the case seems to be that members of the club of which he is president strongly condemn his action, and it is safe to say he will not be president next year. The killing of 50, 60, 70 or even 80 ducks in one day had occasionally been indulged in by some of the members, but it was left for Handwerker to bring home to them the enormity of their offense. The club is known as the Beaver Dam club, and their place is near a small lake a short distance from Evansville, Mississippi.

Game, such as deer, turkeys, quails, ducks and squirrels, was plentiful in this part of the country a few years ago, but the deerhound, the negro with the breechloader, who is at the same time a pot shooter, and such men as Handwerker, are, together, rapidly exterminating it. Mississippi has poor game laws, and such as it has are not enforced.

You are doing a great work in behalf of the hunted, and we will welcome your aid in this part of the vineyard.

Y. V. T.

J. G. Handwerker is secretary of the 3 most prominent hunting and fishing clubs having a Memphis membership. In 2 of the clubs 50 ducks a day is the limit. The other one, the Beaver Dam club, has no limit except what the decency of the individual member may determine. I am not a member of the latter, but one who is a member asked me to say to you that Mr. Handwerker recently killed 139 ducks at Beaver Dam lake in one day.

C. M. B., Memphis, Tenn.

On receipt of the foregoing letters I wrote Mr. Handwerker as follows:

I am informed that you recently killed 139 ducks in one day. Will you kindly tell me if this report is true?

To this letter Mr. Handwerker replied:

I regret to say that the report is not true.

J. G. Handwerker, Memphis, Tenn.

Thereupon I wrote a subscriber in Memphis, asking him if he could verify the report. He replied:

I have heard rumors that Handwerker killed a great many ducks in one day, but have thus far been unable to get definite information in regard to it. I will, however, investigate the matter carefully and report to you in person in a few days.

E. J. M., Memphis, Tenn.

I also wrote "Y. V. T.," saying that Mr. Handwerker had denied the charge. Following is reply:

Your favor of some time ago with reference to Handwerker's denial has had my attention. There is no question but that he killed the ducks, although I now understand he says the number was only 134. Dr. J. H. Hitt, of Clayton, Mississippi, says he heard Handwerker telling what he did with the ducks. I have talked with numbers of men who know that the deed was done, but as yet I have no positive evidence. Will keep hot on the trail, and when I land a man I know saw the ducks I will get his affidavit. You are at liberty to command me for any work which will result in the protection of game. I have already succeeded in getting many men to quit shooting ducks when they have enough for their own use, and I shall keep everlastingly at it.

Y. V. T., Tunica, Miss.

The foregoing letters are all signed by the real names of the writers, and are on file in this office, so that anyone interested, who will call here, may have an opportunity of seeing them. These gentlemen, however, desire that their real names be withheld from publication for the present.

"E. J. M." called here, according to promise, and assured me that Handwerker did kill 134 ducks in one day. He added that a large number of members of the Beaver Dam club had repudiated and condemned Handwerker's dirty work in an emphatic way, and that there was a prospect that the president who had disgraced the club would be invited to resign. Mr. E. J. M. intimated that in case Mr. Dirty-

work should refuse to resign, he would be deposed and publicly expelled from the club.

It is to be hoped that the Beaver Dam club will dispense with Mr. Butcherwerk's services at an early date. If it should not, it will be regarded as in a measure condoning his offense. The club can not afford to let this disgraceful piece of butchery go unpunished. If I remember correctly, the club has a provision in its by-laws allowing any member to kill 50 ducks a day. This is all wrong, and I said so editorially some 2 or 3 years ago. Thousands of other men have said so when hearing of this rule. That any member of this club, and more particularly the president thereof, should so utterly ignore all modern rules of decency and sportsmanship as to kill 134 ducks in a day is unpardonable. Let us see what the Beaver Dam club will do with Mr. J. G. Dirtywerk.—EDITOR.

FAVORS HOUNDING.

Lake Pleasant, N. Y.

Editor RECREATION:

In my opinion, still hunting, whether of deer or birds, falls little short of murder. Thousands of deer are wounded by still hunters and linger for days or weeks until death ends their misery. Deer should be put on the alert, as we put up birds. You would scorn to prowl through the woods and shoot a grouse on a limb or a woodcock on the ground. You want your pointer with you to give these feathered friends a chance for life and to find for you those you wound or kill.

I am opposed to the killing of does at any time or by any method.

Deer were increasing rapidly in this locality under the old law, but we can see a marked decrease in the last 2 years. They are much tamer since hounding was stopped and therefore are more easily killed.

I am a woodcock and grouse shooter. I use a 20-gauge gun and keep as fine a pair of pointers as there is in the State. No man enjoys the woods and hunting more than I do; yet if I were compelled to hunt woodcock and grouse without my dogs I should hang up my shot gun, as I did my rifle when the no-hounding law went into effect.

The last deer I killed I still hunted. I found him after a long and tedious stalk, quietly feeding on the margin of a stream. There he stood, without a suspicion of danger and without a chance for his life. Even as I fired I was ashamed of myself and when his brief struggle was over I would have given my best rifle to bring the poor animal back to life. I vowed I would never kill another deer by still hunting, and though that was 12 years ago I have kept my word.

What is the difference between that kind of murder and killing a deer at a salt lick? What is the difference whether the deer is feeding on salt or on lily pads? You will say the salt is put out to entice deer to a certain spot. I grant it; but how about the man who knows where the lily pads are and when deer are likely to feed on them? Wherein is he better than the man who kills deer at a salt lick? The hunter goes where he is likely to find deer, and the deer goes where he is likely to find food. Between them still hunting becomes the easiest and most certain method of deer killing.

I know whereof I speak. I have lived in the forest 12 years continuously, never taking more than a month each winter in New York city. There are lots of wild deer on my place. I frequently see them from my porches and often hunt them in my woods, but never with any thought of killing them.

My plan to maintain the supply of deer in the Adirondacks would be to forbid the killing of does at any time, make the open season on bucks September 1st to November 1st, and permit hunting with dogs. If the season was long there would be only a few hunters at a time in the woods, thus giving the deer more chance to escape.

Some hunters will ask, "How can we know whether we are shooting at a buck or a doe when we can see only a small part of the animal through the brush?" How can those men know whether they are shooting at a fawn or even a man? Cases of accidental shooting were rare in hounding days; now they are common. A still hunter here last fall saw the tan leggings of a fellow hunter. He fired at them and shot his friend through the leg. Then he fired twice after the victim fell and the leggings had disappeared, fortunately missing both times.

If a man can not see a deer plainly enough to distinguish whether it has horns or not he has no right to shoot. Three men in this vicinity had hairbreadth escapes from still hunters last fall.

Stop all still hunting, and by that I mean stop jacking, floating, stalking, watching at salt licks and crust hunting. Then give the hunter his dogs and a chance to kill a buck and get it.

When the guides hunted with dogs there were but 10 or 12 men here who were deer hunters. They had to keep their dogs the year around for a few weeks' hunting and only a few could afford to do that. Now nearly every man and boy in the community is a still hunter and guide. Anyone can learn a small section of the forest, build a bark camp, buy a rifle and boat and call himself a guide. All manage to kill deer, and all use every device known to the Indian and to the pot hunter. We

never heard of salt licks in this section until the dog was taken out of the hunt; now there are lots of them. Moreover, we have now probably 50 native hunters where we had 10 who kept dogs and were recognized guides. Unless a change is made, especially in the line of protection for does, the deer of the Adirondacks will, within the next 10 years, follow the buffalo of the Western plains. J. D. Morley.

GAME NOTES.

On the 13th of November last, I left Boston on my annual hunting trip in Northern Maine. From Mattawankeag I hired a team to carry me to James Millmore's, 15 miles North on the road to Sherman. The following morning I was ready for the woods.

I had engaged a good guide before leaving home, and found him on hand. The deep snow made it hard walking, but once in the woods and finding plenty of fresh deer tracks, we forgot all hardships by the time we started our first deer. We secured a buck weighing 175 pounds, with antlers spreading 20 inches. After bleeding, dressing and hanging him up we returned in time for dinner. The next day we were not so successful, but the third day we killed a handsome doe, weighing 150 pounds. As the 2 were all the law allows, I spent my time the next few days hunting other game, which was plentiful. Deer are abundant in Maine and will remain so if the present laws are enforced.

J. C. Gilbert, Whitman, Mass.

The excellent game laws of Maine are often praised, yet I have it from reliable authority that they are shamelessly violated all through the summer. Numerous camps are open all summer to accommodate anglers and many of those anglers feel that they would like to kill a deer. The guides have to feed their guests and it takes money to buy beef, so they are perfectly willing to have venison and rather encourage the killing of deer. Some of the camps have many visitors to feed and they have venison nearly every day in summer. I hope this will open the eyes of the Maine authorities and I am sure the L. A. S. will do all in its power to break up that practice. There is abundance of deer in Maine, but constant slaughter will soon show its ill effects. It is estimated 15,000 deer were legally killed in Maine in the season of 1899. Why do not all sportsmen fall into the ranks of the L. A. S.?

L. A. S. No. 2088, Baltimore, Md.

No wonder game is becoming scarce in Florida. Forest fires have been burning here for a month past, driving game into the open and destroying the nesting places of the quails. Hogs, too, are running through the woods destroying nests and eating eggs and young birds. What this State needs is paid wardens in every township. It is not well for private citizens here to thrust themselves forward in game protection work. Barns burn easily in this country and cattle die of strange ailments; but our native law breakers have not sand enough to go up against a State officer. We have a county non-resident license law which is never enforced. There should be someone in each township with power to grant licenses; then no one could dodge the issue.

L. A. S. 4118, Lake Como, Fla.

I killed a big elk the other day about 35 miles from St. Petersburg, and 2 others were killed on the same shooting ground by 2 friends. They were all beautiful animals and weighed about 900 pounds each. Our shooting society has, within an hour's railway travel from here, over 20,000 acres of shooting grounds well stocked with bear, elk, deer, hares, foxes, blackcock, woodcock, partridge, wild turkey and water fowl. If you have any American friends who want to come over for the shooting season we shall be glad to receive them. Our season's ticket costs $75. To-day we had shooting and in one round there were 10 elk and in the other 16. No elk was killed, though 2 unfortunately were wounded and escaped.

P. P. Boeckel, St. Petersburg, Russia.

I am on a ranch Southeast of Medicine Hat and near the Cypress hills. Reading matter is scarce here. When I found a copy of RECREATION I read it from cover to cover. Its stand in regard to wanton destruction of game should meet the approval of every sportsman. There is a game law here, but it is not enforced as it should be; and antelope, ducks and prairie chickens are killed in such numbers at times that they are wasted. Ducks breed here and are killed in the spring when nesting. Some white hogs gather the duck eggs to sell and to eat. The hard storms in the winter bring the antelope into and around the towns and ranches and they are easy to kill.

D. Ross, Medicine Hat, N. W. T.

A merchant named Letempt, of Rileyville, Saline county, was caught with 514 quails in his possession. It seems he started for Belleville with the birds in 2 trunks and a valise, checked as baggage. Information was furnished a constable at DuQuoin, who watched for Letempt. On the arrival of the train the constable boarded it and traveled with Letempt to Belleville. There Letempt suspected he was being watched, and hur-

riedly ordered the trunks and valise re-checked to Rileyville. The constable stuck closer than a brother, and again boarded the train with him on the return journey. Arriving at the Perry county line, the constable arrested Letempt, and confiscated the birds. Letempt was placed in jail and afterward furnished bond. He employed Wm. S. Cantrell, of Benton, as his attorney, and threatened a red-hot fight over the matter. The fines in this case at the minimum would have aggregated $12,850. But the case was compromised. Letempt paid a fine of $250, and his lawyer's and court fees probably amounted to as much more.—Pinckneyville (Ill.) Democrat.

I am employed on a ranch located on the trail of the elk and antelope on their way to and from the desert, and I see and hear of a great deal of unlawful killing. Elk are killed by hundreds along the trail from December 1st until May and June. Antelope the same. Many elk are also killed for their teeth. There is no game warden in this locality, so game is killed the year around, mostly by non-residents. I hear that a guide, not many miles from here, killed 30 elk last winter. I have also heard from reliable sources that elk are killed on the desert in large numbers and the meat is sold in Rock Springs and other mining towns along the railroad.

Tenderfoot, Pinedale, Wyo.

The game laws are little observed here. What grouse we have are killed as soon as they can fly. Deer, which were abundant until recently, are now scarce. Indians and many white men kill them at all seasons. It seems the intention of the Indians, when their reservations are thrown open to the prospector, to clear the country of game as quickly as possible. That has proved the case all over the State. Pintail grouse are becoming numerous in the Okanogan country. They are the only thing able to hold their own against the coyote and the pot hunter. There are few shot guns or bird dogs here, but every boy has a 22 rifle.

L. H. Doner, Republic, Wash.

I wish RECREATION could reach some of the fur hogs who boast in other sportsmen's periodicals of the big killings they have made. There are animals, such as minks, weasels and muskrats, that seem of no earthly use; but to kill raccoons, opossums, skunks and foxes simply for the price of their skins is utterly wrong. No creature renders the farmer more valuable aid as an insect destroyer than does the skunk. Our Legislature recognizes that fact, and has forbidden the killing of those animals under heavy penalty. No other creature does so little harm while furnishing as much sport to as many people as does the fox.

H. S. Wolf, Point Pleasant, W. Va.

Many sportsmen, when on hunting trips, are in the habit of shooting birds that can in no sense be considered game, simply for practice. Large numbers of gulls, terns, swallows, swifts, nighthawks, which in some sections of the country are known as bullbats, and birds of like character are destroyed every year. Without considering the æsthetic side of the question, such birds should not be killed from an economic standpoint. They are of great value to the public, and no true sportsman will wantonly destroy them. Sportsmen should practice and preach the gospel of protection at all times.

William Dutcher, New York City.

I have always hunted small game and observed the law, and I admire your platform of game protection. I have been in Northern Pennsylvania 3 years. Last year I got 15 grouse in the whole season. We had Lou Fleming, of Pittsburg, Pa., and other crack shots here last season for a shooting tournament. They stayed one week to hunt and the largest bag made was 5 or 6 grouse. It is hard to make a big bag here on account of the brush. Birds are plentiful. I contend that men who shoot too much in open season do less harm than is done by campers in close season. C. E. Karns, Kane, Pa.

Early last summer some animal began playing havoc with young chickens in this vicinity. As long as he confined his attention to the hen roosts of my neighbors I was content to suppose him a fox or a coon. When, however, he levied toll on my own flock, I determined to hold an autopsy that would leave no doubt as to the rascal's species. I procured 8 steel traps and set them along a trail leading to an opening in the poultry yard fence. The next day I found the robber fast in 2 traps, and I was as greatly surprised as he, for he was an 18 pound woodchuck.

L. H. Bower, Newfield.

I think A. A. W. never owned anything in the dog line better than a yellow cur, or he would not advocate the extermination of bird dogs as a measure to increase game. No real sportsman feels any more satisfaction in making a nice shot or a good bag than in watching the work of his pointer or setter. Moreover, ¼ of the birds killed are not recovered unless a dog is used. A. A. W. likens hunting with bird dogs to running deer with hounds. It appears to me much easier for a covey of birds to get out of reach of a bird dog than for a deer to get away from a hound.

H. A. C., Luzerne, Pa.

Fog was unusually prevalent here during the first part of January and, because of it, some of our hunters met with trouble. Three members of the Chico club got turned around on a duck marsh. At dusk, when tired, wet, cold and hungry, they reached a spot of dry land and decided to camp there for the night. What dead wood they could find made them a scanty fire around which they sat all night and talked of food, beds and such unobtainable things. When day broke they found themselves only a few yards from the county road leading to their homes.

Madge, Oroville, Cal.

A deer has been seen recently in the fields around Sanquoit and Clayville. The farmers' dogs, of course, give chase now and then and some men have, in spite of the law, taken guns and joined in the pursuit. The man who kills her, if she is killed, will be exceedingly sorry. We are bound to protect her if we can. It is the first deer that has been seen here in 30 years.

Does Norwood claim that the photo in January RECREATION is of live deer? If so, I want to quarrel with him.

W. J. King, Norwich Corners, N. Y.

I am much interested in the protection of game, and am anxious to see more stringent laws enacted and enforced. Grouse and squirrels are fairly plentiful here, but constant pursuit has made them exceedingly wild and is steadily reducing their number. Since the removal of protection from rabbits, they have been almost exterminated by ferreters. The sportsmen of this county favor a short open season on rabbits and would endorse a law making ownership of a ferret a penal offense.

Hunter, Catherine, N. Y.

Deer are plentiful and fair hunting can be obtained within 4 or 5 miles of this town. Excellent hunting can be found at Brompton lake, 15 miles from here. The best place, however, is 30 miles down the St. Francis river, at Drumhanville. Good grouse shooting can be found within 2 miles of town. Coons and red foxes are abundant. Black bear are also plentiful; a large number were shot in the fall of 1901. Ducks and geese are rare visitors on the river.

W. R. Damant, Richmond, Que.

Duck shooting here was good throughout the entire season. Canvasbacks were more plentiful than for a number of years, mallards were scarce, while widgeon, pintail and teal visited us in large numbers. Owing to dry weather and the lack of green food, geese did not remain here in any considerable number, as they did the previous season. However, many snow geese, checkerbreasts and honkers fed on the grain fields in Orange county.

B. C. Hinman, Los Alamitos, Cal.

I congratulate you on the good work already done and hope you will keep it up.

It seems there is no use in trying to get our State law on quails and grouse changed, more especially on quails. It is too bad, having the open season begin October 15 and close December 15. Many quails killed after Thanksgiving are not more than half grown. Pot hunters made our law; let us change it to November 15 to February 1.

H. L. Manchester, Tiverton Corners, R. I.

In March RECREATION someone told of a deer that ran into a building and lay down. Some men secured it, took it to the woods 2 miles away and turned it loose. The League of American Sportsmen ought to give those men a gold medal. I hope their pictures will be sent to RECREATION.

Geo. R. Dunahoo was evidently a tenderfoot and the old miner was filling him up with his road runners and snake yarn.

Mrs. Ben Morss, Cottage Grove, Ore.

Deer wintered well, and are fairly abundant. Mountain quails and gray squirrels are also plentiful. Smoke from the Iron Mountain copper mine and its smelters is killing all the timber and brush for miles around. It has already spoiled thousands of acres of our best hunting ground. This is a foothill and winter range country, and it is a pity that game should be driven away for the sake of a penny foundry.

C. E. Kimball, Stella, Cal.

Am a reader of RECREATION and a firm believer in its principles and work. Your roasting of game hogs is all right, and well deserved by them. We have some here who need browning. December 26th, A. Van Wicklen killed 68 coot and old squaw from a battery, and the weather being warm the next 2 days many of them spoiled. Still such men cry, "where is the game?"

Jasper Smith, Port Washington, N. Y.

I believe there are more quails to the acre in this part of the State than in any other place in the country. Since the law prohibiting the taking of game out of the State went into effect there has been no hunting except a little locally. In one of our orchards of 200 acres there were 6 bunches of more than 20 birds each. They should make a large crop for another year.

C. S. Perry, Menlo, Ga.

I disagree with J. N. Fisher, Jr., who, in February RECREATION, growls at the non-resident license laws. Take the Indiana law as an example. I am sure it prevented 1,000 Chicago shooters from visiting the Kankakee marshes, thus saving the lives of fully 10,000 ducks. Next to the stopping of spring shooting, a good stiff license fee is the best thing for the birds.

O. A. Corner, Chicago, Ill.

I think A. A. W. is wrong in contending that dogs should not be used in hunting grouse and quails. If he lived on Cape Cod, he would want a dozen dogs; and if he used them all he could not get over 6 birds a day. I own a good rabbit hound. I went out 6 times last winter, hunted all day each time, and my biggest day's bag was one bunny.

E. G. Harding, Harwich Port, Mass.

We have plenty of bears, deer, turkeys, grouse and squirrels in this part of West Virginia. Quails would be exceedingly numerous if they could find food in the winter. The rest of the year they thrive famously. Coveys of 20 and over are the rule. Scarcely any grain is raised in this country, which is probably the reason so many birds starve in winter.

Minter Jackson, Jane, W. Va.

As the result of a 5 days' hunt in the vicinity of Notch P. O., Pike county, last fall, I brought out a number of grouse, a 240 pound buck and a big doe. Incidentally I helped extinguish a forest fire. The game and fish wardens attend strictly to business in those parts. They are well supported by the residents and, as a consequence, game is increasing.

P. W. Hobday, Dunmore, Pa.

I saw Mr. Van Dyke's hunting stories in February RECREATION. They are stories, and no mistake. Any deer not instantly killed will run when hit if it sees the person who fired the shot. If a deer dies after being hit with a 22 caliber ball it is from heart disease. A healthy deer would run off with all the 22's the U. M. C. Co. could make in a month.

C. L. Patrick, Cedarville, Mich.

On my annual hunt last season in Northern Michigan, I killed 2 large bucks and a small one. We have a good game law now and I believe deer are increasing, for I never saw so many signs in the same length of time. RECREATION is doing good work. Keep on until every game hog is too ashamed of himself to grunt.

Reuben Fish, Freeport, Mich.

Ducks of many varieties, including mallards, greenheads, pintails and teal, were exceedingly abundant last spring. Even game hogs got all they wanted. It is a shame that ducks are slaughtered on their Northern flight. They are of little food value at that season, and every one shot then means 3 or 4 less in the fall.

C. E. H., Fulton, Ill.

I was among the first in the Adirondacks to stand for a non-hounding law. I was almost alone then in the North woods, but to-day consensus of opinion in the Adirondacks is against the dogs. There are more deer here now than for 30 or 40 years. I have seen scores of them within a few hundred yards of the house.

Mr. R. M. Shutts, Merrill, N. Y.

I should like to see RECREATION take up the fight against loose dogs in the close game season. Without doubt a few dogs running at large through the summer will destroy more young animals and birds than would glut a dozen game hogs. Will not the members of the L. A. S. take this matter into consideration?

R. W. Stout, Poolesville, Md.

Grouse were plentiful here when the shooting season opened last fall, but they were nearly exterminated when it closed. Quails are abundant, because they sold so low the market hunters could not afford to hunt them. Foxes, I am sorry to say, are also plentiful, and are destroying many birds.

Wm. Leigh, Wurtsboro, N. Y.

RECREATION is doing much good hereabouts. Keep pounding away and you'll get things right after a while. This State permits spring shooting at ducks, which is a mistake. It should at least cut out the month of April. That would result in a great saving of birds.

E. L. Cobb, Portland, Me.

Grouse are scarce in this part of Sullivan county, and becoming more so each year. Rabbits are numerous, but farmers kill them at every opportunity, claiming that they damage crops. Quails have increased wonderfully.

Louis Boettger, Jr., Callicoon, N. Y.

We have quails, prairie chickens, jack rabbits, cottontails, ducks, geese, brant, snipe, plover, minks, muskrats and wolves. There will be no open season on quails for 3 years. There are few game hogs here.

Roy Fryer, Plainview, Neb.

ALMANAC FOR SALT WATER FISHERMEN.

The following will be found accurate and valuable for the vicinity of New York City:

Kingfish—Barb, Sea-Mink, Whiting. June to September. Haunts: The surf and deep channels of strong tide streams. Baits: Blood worms, shedder crabs and beach crustaceans. Time and tide: Flood, early morning.

Plaice—Fluke, Turbot, Flounder. May 15 to November 30. Haunts: The surf, mouth of tidal streams. Baits: Shedder crabs, killi-fish, sand laut. Time and tide: Ebb, daytime exclusively.

Spanish mackerel—Haunts: The open sea, July to September. Baits: Menhaden, trolling—metal and cedar squids.

Striped Bass—Rock Fish, Green Head. April to November. Haunts: The surf, bays, estuaries and tidal streams. Baits: Blood worms, shedder crabs, Calico crabs, small eels, menhaden. Time and tide. Night, half flood to flood, to half ebb.

The Drums, Red and Black. June to November. Haunts: The surf and mouths of large bays. Bait: Skinner crab. Time and tide: Day, flood.

Blackfish—Tautog, April to November. Haunts: Surf, vicinity of piling and old wrecks in bays. Baits: Sand worm, blood worm, shedder crabs, clams. Time and tide: Daytime, flood.

Lafayette—Spot, Goody, Cape May Goody. August to October. Haunts: Channels of tidal streams. Baits: Shedder crabs, sand worms, clams. Time and Tide: Day and night flood.

Croker—July to October. Haunts: Deep channels of bays. Baits: Shedder crabs, mussels. Time and tide: Day, flood.

Snapper—Young of Blue Fish. August to November. Haunts: Rivers and all tide ways. Baits: Spearing and menhaden; trolling pearl squid. Time and tide: Day, all tides.

Sheepshead—June to October Haunts: Surf and bays, vicinity of old wrecks. Baits: Clams, mussels, shedder crabs. Time and tide: Day, flood only.

New England Whiting—Winter Weak-fish, Frost-fish. November to May. Haunts: The surf. Baits: Sand laut, spearing. Time and tide: Night, flood.

Hake—Ling. October to June. Haunts: Open sea surf, large bays. Baits: Clams, mussels, fish. Time and tide: Day and night, flood.

Weak-fish—Squeteague, Squit. June to October. Haunts: Surf, all tideways. Baits: Shedder crabs, surf mullet, menhaden, ledge mussels, sand laut, shrimp. Time and tide: Day and night, flood preferred.

Blue Fish—Horse Hackerel. June to November 1st. Haunts: Surf, open sea and large bays. Baits: Menhaden, surf mullet and trolling squid. Time and tide: Daytime; not affected by tides.

FOR ONE-ARMED ANGLERS.

Recently I was about to start for a day's fishing, in company with an acquaintance who has lost his right arm, when he warned me that I would have to bait his hook for him. He said he was accustomed to hire a boy or man to accompany him on his fishing trips to handle his bait for him. I went to a workbench near, and in a few moments I made a simple device which enabled him to put a minnow, worm or frog on his hook almost as easily as anyone else could. The device is simply a piece of straight grained oak, 14 inches long, 1 inch wide and ¼ inch thick, planed smooth, and sharpened to an edge at one end like a chisel. This sharpened end is split down about 3 inches. When the hook is placed in the split it is firmly held. The other end of the stick is held under the arm, leaving one hand free to place the bait on the hook. This idea is not patented, but is offered freely to all anglers who have temporarily or permanently lost the use of an arm.

Blue Spring creek is one of the best stocked trout streams in Missouri. This creek is but 6 miles long, flowing from Blue spring to the Merrimac river. It was first stocked with rainbow trout 5 years ago, and there have been specimens taken out weighing 4 to 6 pounds. The Merrimac river affords good sport in small mouth bass, pike, crappie, channel and blue cat, etc. The beautiful scenery adds to the enjoyment of a day spent on this stream.

About 2 years ago I first saw a copy of RECREATION. I have bought a copy every month since. It has taught me a great deal. Largely as a result of its teaching, I now have a conscience concerning fish and game. Last summer, while at my summer home at Macatawa, Mich., I built a canvas covered sail boat similar to the one described in August RECREATION. I departed from the description in some respects, but the boat was a success. It is 15½ feet long, 52 inches beam, and has 72 square feet of sail area. I used for planking ¼-inch pine, 1¾ inches wide, instead of 3-16-inch cypress, 3 inches wide. For covering I used 18 ounce canvas. For cockpit flooring I made an inch grating, in 2 pieces. This grating, the coaming and the narrow strip outside, just below gunwale are painted green; inside of cockpit and spars have spar varnish; canvas cover and rudder have 2 coats of white lead. The "White Duck" was generally admired by all who saw her.

Arthur O. Garrison, St. Louis, Mo.

HOW THEY RUN IN MICHIGAN.

We have excellent yachting and fair fishing in the Saginaw river and its tributaries. A 20 mile run down takes us to the bay and if the weather permits we can take a limited run on it. Our favorite run is up the river. We have the Tittabawassee, Shiawassee, Cass, Flint and Bad rivers, all navigable for boats of 3 feet draft or less, and all tributary to the Saginaw. The Tittabawassee is shallow and swift, and from June until September affords fine small mouth bass fishing, supplemented with an occasional 1 to 20 pound catfish. The others are clear and not so swift, surround-

ed by miles of marsh and woodland, furnishing fairly good trolling for big mouth bass and grass pike. From about September 1st to November 15th perch are caught in large numbers in both the Shiawassee and the Saginaw rivers. It is a sight to behold during our perch run to see the docks and river fairly alive with men, women and children of all ages, sizes and colors, from every station in life, and with every conceivable kind of tackle out for a few hours' sport with the little toothsome fellows. I counted 216 boats filled with anglers during a 6 mile run last September. Commercial fishing is prohibited in the tributaries, but in the Saginaw it commences November 15 and ends April 15. The annual catch is amazing. It consists of suckers, mullet, perch, rock bass, sunfish, wall-eyed and grass pike, bullheads and carp.

Commercial fishing has been the bone of contention between Saginaw county sportsmen and the market fishermen for several years. The latter have won out at every Legislature, except losing the tributaries 7 years ago; but the sportsmen have not lost all hope of abolishing net fishing entirely, as the Saginaw is the only inland stream in Michigan in which it is allowed.

We have miles of duck marsh, and overrun land practically does away with spring shooting here, as no waterfowl get here before the season closes, April 10th, except a few merganser ducks.

I thoroughly agree with Mr. W. L. Steward in February RECREATION relative to the destruction of small fish by herons and kingfishers. I also add the merganser, or sawbill ducks. A friend killed a heron and found about 30 little grass pikes in his pouch, and I have seen half a pint of little fish come from a merganser duck's mouth after he was dead and hanging head down.

Lee Mann, Saginaw, Mich.

MY TROUTING DAY.

It was an ideal spring morning and every thing foretold a delightful day in the woods. A turn in the trail leading down a steep incline took me to an old bridge beneath which flowed a crystal stream fed by many cool springs. There I expected to make my first effort at the trout.

Hastily adjusting my rod I approached a curling patch of white foam held back by a half submerged log, and made, with pork for bait, my first attempt to hook a brook trout. I cast the hook above the eddy and like a flash a streak of mottled beauty shot from beneath the log. With a vigorous jerk he was thrown clear of the water on the sand at my feet and in a moment he was mine. He was the first I had ever seen. A second cast was equally successful.

With varying results I fished the winding stream as its course led through almost impassable underbrush, occasionally throwing a trout high among the branches, entangling my line in overhanging limbs. Thus the hours passed unnoticed until hunger and fatigue reminded me that it was time to eat. Selecting an old tree trunk I spread my lunch and there in the quiet depth of the forest I ate. A half hour was given to rest during which a number of Canada jays assembled around me and protested at my long repast. A red squirrel ventured near, and, with curious eyes, gazed on the intruder. His curiosity satisfied, he scurried up a tree where he gave me an acrobatic exhibition among the branches.

The slanting sun admonished me to retrace my steps, so I started on the return, taking my time and fishing the most likely places. They yielded an occasional prize and at length I found myself back at the old bridge. There I took an inventory of my catch and found I had 14 trout. I was proud, mosquito bitten, happy; the happiness born of honest recreation and love of nature.

Dr. C. T. Thomas, Trout Creek, Mich.

CARE OF CANVAS BOATS.

I have never noticed in RECREATION any information as to the proper care of a canvas folding boat, or how to repair one. The solution, or preparation, on the outside of my boat has partly worn off.

L. A. Place, Chicago.

ANSWER.

If your boat requires waterproofing the best thing to use is common kettle-boiled linseed oil of a pure quality, which can be bought at any paint store. Use with the oil about ½ a cup of burnt umber, of desired color, to a quart of oil. Stir it well and apply with a brush, being careful to apply it only to the part which is worn. One coat is sufficient. Many people spoil their canvas boats by continually daubing them when the boats do not need it. This forms such a coating that it cracks the canvas when folded, and the waterproofing itself becomes so thick that it cracks. The canvas is then destroyed. Leaving the boat in the water or on the shore where the air gets to it does no harm. Neither does it hurt a boat to fold it and put it away, provided it is thoroughly dried before folding. To fold a canvas boat while the canvas contains more or less dampness and pack it away, will rot the canvas. Many canvas boats are waterproofed with a quick drying process which does not penetrate and fill the fiber of the canvas. Such waterproofing is not right and will not stand. It will quickly wear off from the surface and the boat will leak. The waterproofing should thoroughly fill the fibre of the canvas.—EDITOR.

WEST VIRGINIA WAKING UP.

Constable L. C. Jones, who was recently appointed by Gov. A. B. White as deputy fish and game warden for this section of the county, prosecuted his first case at Fairmont.

It was remarked by many at the time the appointment was made known that no better person could be found in the State to fill this position. His first victims were John Brown and L. H. Slater, young men living on the East side of the river. They were dipping for fish at a point below the first ward feed mill, when Jones went to the place, arrested them and took possession of the fishermen's outfit.

They were taken before Justice Bennington Saturday and were fined each $25 and costs. The defendants took an appeal to the circuit court and were released until court shall convene by each furnishing bond to the amount of $100.

The fish and game laws have been flagrantly broken for years in this State, especially the fish law. So open have the violations grown to be that fishing in the common and ordinary way, by hook and line, trout line, etc., have practically been abandoned, and the fish box, dynamite, etc., substituted.

Judge Mason instructed the grand jury to inquire closely in regard to the violation of the fish and game laws.

I am looking forward to the days when the L. A. S. will conquer and the bristlebacks will be extinct.

Clifford Merrifield, Riverville, W. Va.

CARP FISHING WITH A STEEL TRAP.

Some years ago my father received from the United States Fish Commission a new kind of fish known as German carp, and said to be choice. We stocked a new pond with them, and fed them regularly every day for 2 years. At the end of that time the pond was full of large fish; and I proceeded to angle for them. I soon found that no kind of bait was tempting enough to induce them to bite, and the frequent sight of a fin above the water soon made me desperate. I studied the ways of these carp, and found that they loved to suck at a lump of wheat dough. They would suck it all away, without once taking the bulk in their mouth. This gave me an idea, which I at once executed. I procured a large single spring steel trap and tied a piece of tin on the frame, so that when set the trap could not be approached from the bottom. I tied a lump of dough on the treadle, tied the trap on the line in place of the hook, set it, and held it out in the water a moment. There was a snap, a shower of bubbles rose to the surface, and I brought out a 5-pound carp, with his head mashed flat. In 30 minutes I had 30 pounds of fish, and [illegible] being a game hog I quit.

My thoughts when I attempted to eat those fish are not fit for publication; and I afterward blew up the pond with dynamite to get rid of the small carp which could not throw my steel trap.

Ed. C. Hill, Horse Cave, Ky.

HOW TO TREAT KINGFISHERS.

I have read with great interest a communication from W. L. Steward, of Monson, Maine, in regard to the killing of fish by the blue heron and the kingfisher. As to the heron, I can not say. My experience with him is limited; but the kingfisher is without doubt one of the most destructive enemies of the finny tribe. I have had ample opportunity to study kingfishers during my 3 years as superintendent of hatcheries at this station. There is continual warfare by kingfishers against fish during the spring and summer. We are compelled to kill hundreds of these birds. In spring, summer and fall I have often seen them dart into the ponds and come up with their bill run through a trout 4 or 5 inches long. They will also strike a large trout that they can not handle, and wound him. Then fungus will set in and the fish dies. I agree with Mr. Steward that a bounty should be placed on this bird instead of protecting him by law. I should also like to hear from persons who have had opportunity to study the great merganser and the water ousel. I have caught them both at questionable tricks.

C. W. Morgareidge, Wolf, Wyo.

MINNESOTA WATERS.

Your magazine is properly named. I never fail to read it. I note in February RECREATION that Mr. Stick, of Chicago, after successfully landing a 14-pound pickerel, was so delighted that he could fish no longer, returning home with joy. In this paradise for anglers, Minnesota, we usually find our craving harder to satisfy. Mr. B. and I take frequent drives during the season to the many lakes in our vicinity, and have yet failed to return with less than 20 to 30 bass of the choicest black variety. Many a 5-pounder has bent our light Bristol and made things hum before we had him in our landing net. Eight to 15 pickerel, weighing 6 to 15 pounds each, are common. Lake Mary has our preference, with its sparkling spring water, high wooded shores, abundance of fish. When we get on the croppie we simply pull up stakes and move on, as we find it monotonous to continually take them off our hooks. We have 6 lakes within a mile, and each has its own specialty to offer in the line of fishes.

O. S. Lowell, Watertown, Minn.

DEFENDS HIMSELF.

My attention has been drawn to an item in a late issue of RECREATION which is anything but complimentary to my friends and me. If you will do a little simple calculation you will see that your remarks are uncalled for. Seven hundred fish for 3 men in 8 days would not give them quite 10 fish to each rod morning and evening; and after 3 men and 3 guides satisfy their appetites there are not a large number of fish to carry home.

I am personally acquainted with your informant, B. R. W., Bear River, N. S., and our party are fly fishermen, not pot hunters and bait fishermen like himself, nor have we been known to fish through the ice in the early spring. I have known this party and his friends to return from Flanders' meadow, White Sand lake, Stillwater, and the Mississippi, back of Bear River with a catch of much greater average than ours. I trust you will give this letter the same prominence you gave the item referred to.

R. W. Ambrose, Sydney, C. B.

NIBBLES.

I am interested to learn what fish hatching work is in progress or in contemplation for this year at the State hatcheries. Will you kindly favor me with a statement of what eggs are being hatched or are to be hatched and at what times these operations are likely to be in progress? Are catfish ever artificially propagated, and if so under what conditions.

C. J. Herrick, Granville, Ohio.

ANSWER.

The United States Fish Commission does not hatch any species of catfish, nor does any State Fish Commission, as far as I am informed. No method for the artificial propagation of any species of catfish has ever been developed. All the United States Fish Commission has ever done is to put adult catfish in ponds where the conditions are favorable and let them spawn naturally, then plant the young.—EDITOR.

Please say to W. B. Halcomb that one day when Pop Slyers and I were fishing at the mouth of Junalice river Pop lost several fish because, as I thought, he pulled too soon. I said to him, "The next time a fish takes your bait, let him go a while before you pull on him."

He let the next one have about 40 feet of line. Just then I had a strike that meant business. I said to Pop:

"I have him!"

"So have I" said Pop.

Our lines came in crossed and tangled. I said:

"Your fish got away"

"No, I have him; our fish got away."

When we got the fish in we both had him. Pop took him from the hook. He was a 2 pound bass.

F. K. Middough, Harrisburg, Pa.

Last August while camping on the Cuyahoga river, I caught a number of rock bass, but to our surprise we found, when cleaning them, that they had grubs about 1-16 of an inch long on their back bone. Can you tell me the cause of it? Will the grubs leave the fish when cold weather comes?

Harry J. Hopton, Youngstown, Ohio.

ANSWER.

Ordinarily, rock bass should not be infested with parasites of that kind. Probably the water was too warm, stagnant, or impure. Anything which lowers the vitality of fish renders them more open to attacks by parasites and disease. Very likely when the water becomes more suitable the fish will improve.—EDITOR.

No method of angling affords more sport than trolling, especially on a large body of water, free from weeds and other impediments to the free use of the line. I have spent many summers fishing in the vicinity of Petoskey, Mich. With a small launch and a line not less than 300 feet long, trolling at a moderate speed over good fishing grounds, such as are found in the many Northern lakes, is pure joy.

Burt lake, 20 miles Northeast of Petoskey, is one of the best bodies of water for this purpose. There trolling is employed almost exclusively, and pickerel are taken in great numbers, weighing 2 pounds and upward. A 28-pounder was the largest ever taken in that lake, to my knowledge.

T. P. Wagoner, Knightstown, Ind.

On the 7th of June, 1898, at 6 p. m., I left town with my wife and 2 little children for a trip of 2 days at Alligator Head. We went down at night because it was cooler. Having only very light wind we reached the Head next morning at 8. I went out on the wharf in the morning and caught 3 trout, 3 catfish and 1 shoemaker in 20 minutes. Spent the evening resting.

Next morning (9th), I fished from 9 to 11 and caught 7 trout, weighing 16 pounds, and 2 man-eating sharks. Tried for Jew fish (deep sea bass), but got none. In the afternoon we returned home with a fair, stiff, breeze; making the trip in 3 hours and 20 minutes.

H. M. Brown, Port Lavaca, Tex.

Persons who are interested in the habits of fishes should read the article about driftwood noises, in the Natural History department of this issue.

GUNS AND AMMUNITION.

Anybody can keep on shooting all day, but it takes a gentleman to quit when he gets enough.

SOME WORK WITH A SAVAGE.

I have had a Savage .303 about 4 months and after having given it a thorough trial I consider it far the best rifle I ever owned. It will not, of course, shoot so strongly as a 30-40, but that is its one point of inferiority. The .303 shell does not seem so apt as others to stick in the chamber and break off. The gun shoots right where it is held and at the same time is sighted coarser than a 30-40, which makes it easier to catch a quick sight.

When it comes to reloading, the Savage shell is a thing of beauty and a joy forever. I use a wire patched 180 grain bullet, made by the National Projectile Co., and 18 grains by weight of Savage powder. I have been able to prove, to my own satisfaction at least, that the wire patched bullet will hold up 50 yards farther than the regular soft nose, metal patched bullet. It will do quite as much crushing and tearing as any other bullet, yet does not damage the rifle.

Recently I shot a white tail buck at 281 paces. The bullet struck about 3 inches back of left shoulder point and about 1-3 the way from the back bone to belly line. It nicked one rib a little going in and cut 3 at point of exit, besides tearing away a lot of flesh from the right shoulder. The buck jumped once and went all in a heap. I don't see where the 30-40 could have done better. I started with 60 U. M. C. cartridges; 10 having burst, the rest are still good though some have been reloaded 5 times. I never clean my shells in any way except to wipe off with a greasy rag. I tried to reload 30-40's and on the first reloading 21 out of 60 shells broke at the neck.

I should like to know if any reader of RECREATION has seen a gun like one I know of, which was bought in Newport, R. I., about 45 years ago, for $25. It was a single barrel breech loader, though it had a ramrod and was often used as a muzzle loader. It was made for Western turkey shooting, with either balls or buckshot, and used the old percussion cap. It was lever action with an open space behind the flat-sided breech block, which was in 2 pieces, working on the principle of a wedge, so the harder the gun recoiled the tighter it was closed. The barrel was 12 gauge, about 24 inches in length, and was fastened to the stock by a bolt passing through the barrel from left to right. The stock was extremely long and straight, and the gun had a hammer about 4 times the ordinary size. The strangest feature in the make of this gun was a vent on the right side of the breech, just below the tube for the percussion cap, from which a stream of fire nearly a foot in length would issue every time the gun was discharged. This, the makers, whose names I do not remember, claimed made the gun burn more powder. Was this claim true? If so, why did not the shooting power of the old muzzle loaders increase when their percussion tubes became so badly burned out that enough gas would escape through them to blow the hammers to full cock every time they were discharged? If I remember rightly, the cartridges for this little gun contained 23 buckshot. For wild goose shooting I never saw its equal. I have seen it shot at a target against guns of all prices and bores, and never saw a gun that could equal it in range and effectiveness. Was it the vent in this gun that caused it to shoot with such tremendous power? The only objectionable feature I remember about the gun was its loud report. It roared like a small cannon; but when kept clean had no recoil, although it weighed only 6 pounds. Old Subscriber, Webster, Mass.

YES, HE PAYS 'EM.

I note that some wise men from the East are sending up a plaintive howl, claiming that the editor of RECREATION is paying his subscribers for saying complimentary things about him and about his magazine. I have no fault to find with this kick, for it is a good ad for RECREATION, and it is also true. Mr. Shields has paid me for saying nice things about his magazine, and for fighting on his side of the fence when any little Coquinian war chanced to come bobbing along; and I have no doubt he has paid thousands of others for like services.

This is how Mr. Shields has paid me. For only $1 a year he has furnished me a magazine from whose pages I can glean more real information on subjects dear to the hearts of sportsmen than can be found in any dozen other publications. This alone would be pay enough, but it is not all. He has ever treated me with uniform courtesy, and it is fair to assume that he extends this courtesy to all with whom he has any dealings, game hogs excepted. Courtesy is a good investment for anyone, and I respectfully recommend it to the careful consideration of the hasty-pudding folks.

Here is some more pay that I get. RECREATION, aided by the L. A. S., for whose birth and rapid growth Mr. Shields is responsible, is trying to save the game for

all sportsmen. This magazine has ever stood firmly for game protection, while its editor handles the game and fish hogs in a commendably vigorous manner. By this means Mr. Shields has made enemies, and has lost subscribers innumerable, but it is worthy of note that the circulation of RECREATION is rapidly capering upward, and right here I call the attention of advertisers to this fact. I am, of course, paid foi saying all this; paid as enumerated above. When some of the big gun manufacturers and dealers pay their patrons in the same coin—courtesy, and a desire to please customers by furnishing the best goods, they will find it will pay, and that more cash will flow into their strong boxes. As to sportsmen receiving any pay, save courtesy and fair dealing, for booming RECREATION, there is nothing to say only that the lovers of gun and rod are gentlemen; and as gentlemen, they can stand with equanimity the insults of the howlers. Those sad eyed mortals who worry about pay would better go 'way back and stand on their heads till sufficient blood to properly work their brains flows down into their think-tanks.

Gentlemen of the plaintive howl, it is up to you either to quit the fight and retire from the field, or else to lay down your scalping knives and your poisoned arrows, and take up modern weapons of warfare. The methods and the weapons you are now using will not go in this era. The days of savagery are past, and real men do not now tomahawk their enemies either literally or verbally.

A. L. Vermilya, Columbiaville, Mich.

PREFERS THE 44-40.

All the various rifle calibers are good, and should be used for what they were designed by the originators. The way to make this department interesting and instructive is to write the facts as they are, the caliber of the rifle, the kind of ammunition and the distance the game was hit, and then let each reader judge for himself.

The 30-30 and 30-40 when used with steel or full mantled bullets are military arms, of course; but with soft pointed bullets their effect on big game is deadly. In face of the evidence that has been produced, any man who says the 38-55 is equal or superior as a game killer to the 30-40 stamps himself as ignorant and inexperienced. It also makes most sportsmen tired to read about the 25-35 making a hole 4 times larger than a 45. Those of us who have had experience with the 30's know such claims for the 25-35 are nonsensical. To my mind the 30 calibers should not be compared with black powder guns as they are entirely different. My favorite is the little 44-40, but I hate to see men ignore facts and set at naught the merits of an arm so powerful and effective as the 30.

The Winchester people do not say the 32-40 and 38-55 are the best all around cartridges. Those loads were designed for target shooting in the old Ballard rifle. They became popular at once and soon Stevens, Remington, Winchester and other makers built more target rifles for those calibers than for any others. Those cartridges hold nearly all the finest rifle records up to 500 yards; showing that the originators knew their business. But according to the Winchester tables the 32-40 and 38-55 as big game killers, are not in it with most of the cartridges named on that list. Most all the 38, 40, and 45 calibers shoot flatter, have a higher velocity and more penetration. The 40 and 45 calibers have a much larger diameter. It is not necessary for a hunting rifle to put 16 consecutive shots into a 2 inch circle at 200 yards. Killing power, not extreme accuracy, is the thing of prime importance. Penetration, diameter and striking power constitute killing power. The 32-40 and 38-55 do not possess those qualities to any great extent. We also must not forget that 90 per cent. of big game killed is shot within 200 yards, and almost any rifle will shoot with enough accuracy to hit game at or even beyond that distance. Many of the 40 and 45 calibers shoot well up to 2,000 yards. The Winchester table is both interesting and instructive, and every sportsman ought to get a copy and study it. If he can reason and does not forget the simple law of cause and effect, he must come to the conclusion that a large bullet that penetrates a goodly number of boards, must be a much better killer than a small one that penetrates fewer.

Wenzel Mashek, Kewaunee, Wis.

DENOUNCES MUTILATION.

Saylesville, R. I.

Editor RECREATION:

In reading the letters in January number by Terry Smith and W. W. Prentice, relative to the work of the 30 caliber rifle, I was filled with disgust at the mutilation recorded.

I own a 30-30 rifle which I bought some time ago, but have not yet used on game, and, in my present frame of mind, I shall not use it. For 6 or 7 seasons I used a 38-55 for deer shooting and found it a perfect rifle for the work. There are, of course, several cartridges of more or less similar power, which answer almost as well; but I caught the craze, sold my 38 and bought a "modern weapon." However, if I can not shoot deer without tearing 7 inch holes or disemboweling them, I will go out of the business.

Why a man need blow off whole sections of a deer's head in order to kill it I can not explain. These are simply hints as to what those articles described.

One writer says that after seeing 2 deer almost blown to pieces his guide became a believer in the small bore rifle! I have always thought the only use of a rifle was to kill; simply and cleanly kill. One might judge from many descriptions published within the last 2 or 3 years that total annihilation was the end to be attained. Possibly, in the near future, somebody may bring out a weapon which, at its discharge, will destroy every vestige of the game aimed at. Then the 30-30 will not be in it, and there will be a mad rush for the new gun because of its power.

I believe in using tools or weapons adapted to the work required. Undoubtedly the 30 has its place and its uses, but in its indiscriminate use, it becomes a danger because of the great surplus power exerted. Moreover, it is, and must always be, extremely wasteful of meat.

I am fully convinced that 4 out of every 5 of such rifles are as unnecessary for the use they are put to as a 12 inch naval gun would be. I have no excuse to offer for owning one myself except my anxiety to be recent. If ever I use my 30 on deer it will be with a reduced charge or low pressure powder.

I wonder if anyone else is tired of hearing about the wonderful, I call it horrible, work of the 30-30. L. A. Jordan.

GOOD LOADS FOR THE 30-40.

Having noticed a number of inquiries in RECREATION as to the best all around rifle, I recommend the 30-40 Winchester as being one of the best.

A good short range load for the 30-40 for target and small game is 9 grains DuPont shot gun smokeless loose in shell; 8½ or 2½ Winchester primer; and Mr. Beardsley's bullet, No. 3086, 101 grains, or the Ideal No. 30812, 113 grains, cast 1 to 10 and well lubricated. Seat bullet in shell just deep enough to cover lubrication, with no crimp. If bullets are loose in expanded shell, use a muzzle sizer. The sharp-pointed bullet will not tear small game so badly as the flat point. This load is clean and accurate and about equal in power to a 32-20. Another load which will do fine work and is somewhere near a 38-55 is 52 grains (Ideal measure) semi-smokeless ffffg. and a 220 grain lubricated wire patched bullet. Those bullets are perfection and are advertised in RECREATION.

A great deal of useful information in regard to reloading and reloading tools is contained in the Ideal Hand Book. A good plan for anyone using high power smokeless rifles is to keep an Ideal broken shell extractor at hand. They will save trouble, delay and bad words. But unless care and judgment is used in experimenting with smokeless powders a good insurance policy is the most important thing to have on hand.

I use Lyman receiver and ivory bead sights. The rear sight can be instantly adjusted to any load. Tell A. G. Burg, Livingston, Mont., that the Ithaca No. 1 or 2 is the best medium priced gun in the world. O. E. Raynor, Meadville, Pa.

A DOUBTING THOMAS.

In February RECREATION Mr. Van Dyke tells of his wonderful exploits with a Stevens Favorite. Why didn't he sign his name Van Winkle? Then the charitable might believe that he fell asleep on some mountain and dreamed that gun story. Think of a 22 caliber bullet containing 45 grains of lead, with a penetration of 5 pine boards, passing through the shoulder of a bull elk and breaking a rib on the opposite side. Think of his shooting 4 deer, all through, or near, the heart. Imagine, if you can, his loading and firing a single shot rifle 4 times at a running deer. Why is he not with Buffalo Bill? Then when he investigates he finds he has killed 4 deer with those 4 shots while thinking there was but one deer all the while. If Syracuse thought some of Mr. Van Dyke's other stories were fishy, what does he think of this later romance?

I have shot squirrels with a 22, but sometimes had to use 3 or 4 bullets to make a neat finish. Mr. Van Dyke gets a bullet stuck in the barrel of his 22 and blows it out with another cartridge. It bulges the barrel some. Then the poor little gun falls under the wheels of a wagon and the barrel is bent. Thrown away and left to lie outdoors several months it is finally restored to alignment and usefulness by being hammered over a log. "Good medicine for the crowbar, good medicine for the gun." Great!

Moral: Throw away your 30-40 and 45-70 guns and get a 22 for big game.

E. G. Moulton, Derby Line, Vt.

A CONVERT TO MODERATION.

I have been reading RECREATION regularly for some time, though I was guilty of throwing the first copy I saw under the table with the remark that I would not spend my time with such rot. I had grown up in a region where the chap that killed the most game was the best man. I shot 26 deer in 3 weeks one season, and thought I was a great sportsman, but after reading your publication a while I changed

my mind about it. Now I stand in line to protect game in every way possible.

Therefore, I was sorry to see the Marlin Co. and the Peters Cartridge Co. withdraw their ads from RECREATION. I know from experience that both concerns deserve hearty praise for protecting our game, as I will guarantee that anyone using their goods exclusively will be in little danger of getting roasted as a game hog. I was out with a party one fall for a duck hunt, and we were unable to kill enough for the camp table, though ducks were plentiful. Four of us were crack wing shots, but we had no ammunition with us except Peters' Quick Shot cartridges. Last fall I used the U. M. C. New Club, and, although I am a Winchester partisan, I had to acknowledge they do execution.

My gun is an old timer and will not do good work with nitro powder, but makes some record breaking kills with New Rival or New Club black powder shells.

F. B. Lamb, Washburn, Wis.

REGARDING BULLETS.

In reply to Amateur, whose letter appeared in February RECREATION, I will say that lead bullets do not develop so great a velocity as metal patched bullets. A metal patched bullet will give 100 feet more velocity than a lead bullet with the same quantity of powder. Accuracy can not be maintained with a lead bullet at over 1,500 feet velocity. Another reason is that smokeless starts a bullet much quicker than black powder and a lead bullet is likely to jump the rifling at the breech.

Some people use RECREATION as they would a tin horn, to talk through. Do not write things that people will not believe. Mr. Van Dyke, of Red Lodge, Mont., tells of killing a number of elk and deer with one shot each from a Stevens 22. He says he shot deer at 75 yards running straight from him and the little 22 put a bullet through the heart of every one. The Stevens must have excellent penetration.

There are a number of good shot guns, but the Winchester '97 model excels them all. With mine, I have put 310 No. 8 shot into a 30 inch circle at 40 yards. My load was 3 drams powder, 1 ounce shot. With shot spreaders in the same load I can put about 175 pellets into the same target.

I gave wire patched bullets a trial in my 38-55 last fall. They are excellent for all but game killing. They do not expand on striking bone.

M. C. McGowan, Lawrence, Mich.

PENETRATION OF THE SAVAGE.

In March RECREATION we came across a letter written by R. M. C., Red Lodge, Mont., in which he mentions that the Savage Arms Company claims the Savage rifle will shoot into 50 inches of pine boards. As R. M. C. mentions the 30-30, we take this opportunity to explain that it is our .303 full jacketed bullet cartridge fired from a Savage rifle which penetrates 50 inches or more of clear pine. We had an exhibition at Detroit, Boston and New York shows, in which there are pine logs showing this extent of penetration. The bullets have traversed the wood end-wise, which is a greater test than across the grain, the wood being stronger end-wise, and more power being required to crush the fibers than if the bullet were going across the grain. We have in some instances secured better results than 50 inches, but sometimes the bullet will not reach so far as that, owing to some extra resistance in the fibers of the wood. We have noticed that if a wood contains much rosin it will materially reduce the penetration.

Savage Arms Co.

PETERS' FRIEND DISAPPROVES OF HIM.

Dover, N. H.

Peters Cartridge Co.,
Cincinnati, Ohio:

Dear Sirs:—I think you are wrong when you accuse Mr. G. O. Shields of doing you an injustice. The fault is probably with the extractor of the gun being worn or the springs weak. It certainly is not with the shells, because I have a Winchester and have shot at least 1,000 new Victor shells in it. I shall be in the market later for a lot of your goods and expect to have large sales. I consider the Peters goods equal to any on the market.

Yours truly, L. C. Hunt.

SMALL SHOT.

For ducking I use a 6½ pound Claibrough, full choke. It will kill at 75 to 80 yards. Those who claim that black powder is superior to smokeless, taking everything into consideration, are mistaken. There are good and poor smokeless powders. The 2 best are Dupont and Laflin & Rand. I find Winchester Blue Rival shells with Laflin & Rand smokeless a load which can not be bettered, and it is within reach of all. I am with you in your struggle against the game hogs. We are troubled with a few here.

S. E. Sangster, Pt. Perry, Can.

In looking over recent numbers of RECREATION I find no mention of Stevens' Ideal rifle No. 44. I have one, chambered for the 22 long rifle cartridge, that I have given a thorough test. It will shoot short and long cartridges accurately up to 100 yards. When weather conditions are favorable it will, using the long rifle cartridge, do good work at 200 yards. For squirrels, rabbits and other small game

this weapon is not excelled by any other single shot rifle in the market. Any one wanting a first class gun at a moderate price should select a Stevens Ideal.

A. L. Fritts, Olpe, Kans.

Is there a 22-7½-45 cartridge made with smokeless or semi-smokeless powder? If so, who makes it? If there is such a cartridge, have any of your readers tried it, and if so, with what results? I have just bought a 22 Winchester R. F. rifle and think it all right. I have a 44 C. F. rifle I bought last fall. Though fitted with Lyman sights, it does not come up to my expectation. I am going to sell it and get either a Winchester 30-30 or a Savage 303. Which of the 2 has the flattest trajectory?

G. M. Miller, Montreal, Que.

What shell and load would you use in a Forehand single barrel for ducks?

What is the velocity of a 32 calibre rim fire cartridge fired from a Stevens Favorite?

E. F. Gillespie, New York City.

ANSWER.

The velocity of the 32 short rim fire is about 980 feet a second; the 32 long rim fire, 1,025 feet.—EDITOR.

In a Forehand single barrel gun, for ducks, I should use U. M. C. or Winchester No. 4 shot.—EDITOR.

I should like to give Mr. Jones, of Slate Hill, Pa., the benefit of my experience with guns. I have owned 2 Colt 12 gauge, 1 Claibrough 10 gauge, 2 Greener 12 gauge and 2 Greener 16 guage guns. I used all more or less for game and trap shooting, and while the 16 gauge was not quite so effective in trap shooting it was an ideal field gun. The last 16 I worked was an ejector Greener, and I used it with the greatest satisfaction on quails, snipe, and ducks all through the South.

E. C. Hall, Ashfield, Mass.

I use a 32-40 Winchester for deer and for that purpose prefer it to all other calibers. I shot 4 deer last season, securing 3 of them. The other I could have got had there been a tracking snow. I fired twice, hitting him back of the shoulder and in the hip. He continued running, and as the wounds soon stopped bleeding, I could not follow. Of the others 2 dropped instantly and the third ran not more than 6 or 7 rods. My favorite for larger game is the '76 model, 45-75 Winchester. Louis Luder, Caro, Mich.

Which is the best way to choke bore a gun barrel for hard and close shooting? Is the taper choke bore as good as the full choke for nitro powder? In the former the barrel is cut true cylinder bore from the breech to within an inch of the muzzle. The muzzle is left about 1-64 inch smaller than the rest of the barrel. Will some one who has used the Winchester 30-40 on big game give me his experience? What is a good load for shore birds?

Warren J. Barlow, Wollaston, Mass.

I should like to know the tensile strength of the Winchester rolled steel rifle barrels. Can you tell me?

John Bowden, Spring Valley, Minn.

The question was forwarded to the Winchester people and they replied:

Nickel steel for high velocity rifle barrels we buy with an elastic limit of 80,000 pounds. Steel for black powder barrels we buy with an elastic limit of 40,000 to 45,000 pounds.

Winchester Repeating Arms Co.

I should like to find out whether the soft nose or the full metal cased bullet is the better for big game. I have had varying success with both. On one occasion I shot a wolf at 200 yards with a Winchester 30-30. The bullet, a soft nose, struck the backbone and did not pass through the animal. Out of 18 deer shot with hard nose bullets, in front parts, 11 ran ¾ of a mile to 3 miles. B. S., Ithaca, N. Y.

A year ago I wrote RECREATION asking advice about choosing a quail gun, and was urged to order an Ithaca 12 bore, 28 inch, weight 6¾ pounds left barrel modified, right barrel cylinder. I did so, and received a 1902 model Ithaca gun, with the new cross bolt and fore end ejector. I thank RECREATION for helping me find just what I wanted.

Northwest, Sioux City, Ia.

I use only Dupont smokeless powder in shot gun, rifle and revolver. While I have used nearly all other makes, I consider that the best in every way. Am now using U. M. C. smokeless shells altogether, and their metallics in my smaller arms. U. M. C. goods are simply perfection.

L. D. Whittemore, Redlands, Cal.

I have seen nearly all kinds of shot guns, and have owned a great many. Experience has taught me that there is no better shooting gun than the Ithaca. By ordering a gun from the Ithaca Co. you can get just what you want, and it will be the best of its kind.

O. J. Emerson, Kendallville, Ia.

NATURAL HISTORY.

When a bird or a wild animal is killed, that is the end of it. If photographed, it may still live and its education and scientific value is multiplied indefinitely.

WHAT CAUSED THE TAPPING SOUND.

T. F. Covert, in March RECREATION asks. "What is it?" and the same question I have asked myself several times of late years while on fishing expeditions, but about 2 years ago I got my first clue to the problem, which came to me just as it came to Mr. Covert; the conditions being always as he states them in his inquiry. It is nothing more nor less than a poor, old, skinny, bony, dried-up, demented carp, or white sucker, the abomination of a true angler. I do not like the name fish hog, but I should be willing to acquire it if I could kill all the suckers and carp in existence, and I should be willing to be roasted by Coquina as thoroughly as he roasted my friend and neighbor, B. I. Jones, the duck shooter.

In the spring of '99 I was visiting in the vicinity of Buckeye lake, on the banks of Lake run. At that place the run has been washed out in 2 or 3 pools to the depth of 8 or 10 feet. There one spring morning I found myself before sunrise, and heard that tapping, or rather smacking, sound as it was on that occasion. These pools were shaded by several large American elm trees and the blossoms, falling into the water and being blown by the wind or carried by the waves, had gathered in large patches on the surface. These patches were surrounded by great, big, rawboned, slab-sided, dun-colored, flabby, bottle-nosed carp, weighing 3 to 15 pounds, their bodies half out of the water, sucking in those elm blossoms by the quart. In one patch I counted 13 of these abominable fish and I was frantic in my appeal for something with which to exterminate them. I would have given my kingdom and thrown in my best fishing rod as inducement, which, in fact, is worth more than my kingdom.

I ran to the house, about a quarter of a mile away, got one of Paddy Marlin's 30-something rifles and rushed back to wreak vengeance on those abominations. They were still at work when I returned. With care I aimed the gun at the biggest, rawbonedest, slab-sidedest, dun-coloredest, and let go. When the smoke cleared away the water was full of the red bellied whelks, but before I could get a stick and get any out in order to tramp them into the mud with my feet, they all came to life and disappeared. But then you know a Marlin is of no account anyway.

Some time afterward, when sitting on the bank of a creek, I heard that same tapping sound, and grabbing a rock I peered over the bank. That time I saw a poor, old, skinny, white sucker, belly up, on the under side of a root, sucking away for dear life and squirting the dirt and sediment through his gills as if it was good. A number of times since I have seen the same performance repeated. Of course I threw that rock at the sucker. What did you think I picked it up for?

Thos. H. Jones, Newark, Ohio.

About 5 years ago a number of us were camping out in the Eastern part of Iowa, along the Maquoketa river. One day while strolling along the bank of the river I heard just such a noise as Mr. Covert describes. There was a sandbar about 30 feet from the bank, running parallel with it, and at the lower end was a large pile of drift, connecting the bar with the bank. I examined the pool closely and failed to find a living thing in sight in the neighborhood of the noise, but, like Mr. Covert, I noticed that bits of drift bobbed up whenever I heard the noise. I waited some time, but finally went back to camp, wondering. The next day I visited the pool at a different hour and I saw at least a dozen turtles out on the logs, sunning themselves. They were what are commonly called snapping turtles. I visited the place many times, going up quietly, in order not to frighten the turtles, and watching them closely, but I was never able to determine whether or not it was the turtles that made the noise. I do not remember seeing a turtle out of the water when I heard the noise. I decided that it was one of their modes of feeding, probably gathering the snails or other animals that were on the under side of the drift. Now I, like Mr. Covert, would like to know positively what made the noise. I have never seen so many turtles in one place before or since and never heard the noise at any other place.

J. D. B., Colorado Springs, Colo.

From Mr. T. F. Covert's description of the tapping he heard, I have no hesitation in saying that it was caused by a fish of the sucker variety. When a boy, I was once fishing in the Sequachee river, at the foot of Cumberland mountain, in Tennessee. I had chosen a quiet, shady nook, an ideal place for fishing, but a poor place for fish, as I soon found. After a time I heard this same tapping, or sucking, sound described by Mr. Covert and determined to

investigate. Moving a little nearer the spot whence the sound seemed to come I soon located it in a mass of sticks and leaves collected by the current about a half submerged log. The water being clear I soon discovered fish. Going home I rigged up a small spear and returned. Stepping out on the log and waiting some time I secured 2 or 3 small fishes and then tried another place, with the same result. Just what kind they were I am not prepared to say, but I remember they all had sucker mouths and I am inclined to think they were feeding. I have heard them many times since. Anyone who will quietly approach a drift in a stream any day in summer and remain still a short time will be rewarded by hearing that sound.

F. F. Mottelen, Primghar, Iowa.

Some years ago, while fishing in the Iowa river, I noticed the peculiar noise mentioned by Mr. Covert, in a drift immediately above a fallen tree. On investigating I found that every time the noise was made a stick or a small piece of bark could be seen to rise and fall at intervals. I decided that the disturbance was made by a sucker. Wishing to be positive I placed a small hook on my line, baited it with an angle worm, placed a small sinker above the hook and lowered it into the drift 4 to 6 inches below the surface of the water, where it was in motion. In a few seconds I landed the fish, which proved to be a sucker. It is a question in my mind whether these fish feed on the decaying wood or the insects found therein, or whether they simply make the noise for pastime. I have been fortunate enough, once or twice, to see these fish sucking on the under side of a drift and their body is almost perpendicular in the water. If Mr. Covert will take time to investigate this matter, I feel confident he will have a counterpart of my experience.

C. L. Bowen, Fort Dodge, Iowa.

I read many magazines and newspapers, but none is more welcome than RECREATION. I may be able to throw light on Mr. T. F. Covert's perplexity. I have heard sounds such as he describes, and several times have traced them to what I think is the source. If Mr. Covert had thrust a fish spear through the debris he would most likely have impaled a fish of the sucker variety. These fish feed largely on the low vegetable and animal life that accumulates on submerged logs and drift material. I do not know just how they produce the sound. I have watched them while feeding and they seemed to attach the circular rim of their mouth to an object and then with a quick movement remove it. I am of the opinion that they attach their mouth to the object, and by producing a partial vacuum by suction remove the food and at the same time produce the sound referred to.

Ira Lamb, Atkinson, Neb.

The drumming or thumping noise heard by Mr. Covert was made by fish, sucking. A number of fishes make this noise, namely: the buffalo fish, the quillback or bony carp, the German carp, the redhorse and the different varieties of suckers. While buffalo fish and German carp suck almost exclusively in foam and drifted sediment, the redhorse, quillback or bony carp, and all the various tribes of the sucker species suck on logs, fallen trees, etc.; in fact, on any bulky article suspended in the water, on the bottoms of boats, etc. The sounds are easily distinguishable, the foam suckers making a nois somewhat resembling that made by a hog drinking swill, while the log or timber suckers make a distinct cracking, or thumping, noise. The redhorse makes a great deal more noise than any other kind of fish. He can be heard on still nights a distance of 200 to 300 yards along the river.

T. H. McKinley, Wheatland, Ind.

Say to Mr. T. F. Covert that the mysterious sound he heard was a sucker, feeding. Some years ago I was fishing in the Auglaize river, near where a log had lodged, above which a lot of drift had gathered, consisting of small pieces of bark, sticks, rotten wood, leaves and foam. Hearing that peculiar sound I soon located it and noticed that small particles of drift and foam about 2 or 3 inches square, rose each time. While I was watching, a neighbor came along with a gun and I called his attention to the disturbance. He was as much puzzled as I was. After watching it for some time he concluded he would try his rifle. He took careful aim and fired. In a few moments a large sucker floated out, with part of his head gone. If the listener is close he will notice a peculiar sucking sound accompaning the tapping Mr. Covert describes.

D. W., Delphos, Ohio.

I have often heard the sound described by Mr. Covert, when fishing for bass, which, by the way, is usually after dark, when the water is smooth and no noise is heard except what is made in the canoe. In paddling along by a lily bed I once heard the sucking, or picking, sound he said came from the drift stuff under the uprooted tree, and on investigating with a lantern I found that the noise was made by a black bass, with his nose just out of water, sucking flies off the edge of the leaves. When I hear that "gnashing of teeth" I forthwith send my white miller on its mission of allurement and am usually rewarded by a click, click, that sends a thrill along my

spine, even to-day when the ice is on all the waters.

E. C. Frost, South Framingham, Mass.

There are 4 kinds of fishes that make the same noise as a woodpecker, namely, the sucker, the redhorse, the carp and the buffalo. They get under a boom, bark, a barge, etc., and cause the noise by sucking. However, I have noticed that their tappings are slower than a woodpecker's. That is one way these fishes feed. I have had a good chance to know as I have seen them with half their bodies out under a house-boat and have heard the constant tapping. Some old rivermen claim they even pull the calking out of barges.

Albert Roberge, San Francisco, Cal.

In answer to Mr. Covert, in March RECREATION, I have heard that peculiar sound he speaks of, and have always found it to be made by the fish called sucker. If Mr. Covert were here and would take a run over the logs stored in the different bays on Black river he would find many opportunities to see and hear for himself. He would see suckers swimming alongside a log striking it with their mouth, thus producing the sound he spoke of. They swim on their sides while feeding among logs, and on their backs under driftwood.

Frank Schaller, La Crosse, Wis.

I used to fish a great deal and one day I was attracted by the same kind of noise described by Mr. T. F. Covert in March RECREATION. I investigated and found the noise came from just such a place as he describes. I watched a while and then dropping my baited hook where I saw the disturbance, I pulled out a large sucker. Whenever I saw a similar agitation going on thereafter I dropped my hook and pulled out another sucker. In time I caught 9. I have seen the same thing a great many times since.

N. H. Uttie, Elmwood, Wis.

The peculiar noise Mr. T. F. Covert heard under the foam, dirt, etc., in Little Beaver creek was caused by the common sucker. While I do not favor shooting fish, if Mr. Covert will take his gun next summer and shoot at the place where the movement of foam and the noise are I think he will get a sucker. I do not know why suckers do this, but think they are feeding. I find the noise they make is similar to that made by placing the tongue to the roof of the mouth and removing it forcibly.

J. Drueg, Elgin, Minn.

The sound referred to by Mr. T. F. Covert in March RECREATION was probably made by a turtle of some kind. I have several times heard similar sounds near old logs or where drift had collected and, on investigating, I have found one or more snapping turtles (*Emysaurus serpentina*) frolicking around and feasting on the insects which gather about such places.

C. C. Manley, Milton, Vt.

In March RECREATION Mr. T. F. Covert says he would like to know the cause of the pecking he heard while fishing. I have had similar experience and on investigating I found it to be the work of squirrels. Have since been told it was so. It attracted my attention while camping last summer and I, like Mr. Covert, thought it was a woodpecker. F. B. T., Syracuse, N. Y.

In regard to the tapping described by Mr. T. F. Covert, I have heard a sound similar to it and on investigation I have found it was made by turtles, feeding. They swim under moss, weeds, or such debris as Mr. Covert describes, with just the end of nose out of water, and snap at bugs, flies, etc., with a decided snapping sound.

Geo. E. Blackford, Algona, Iowa.

The noise Mr. Covert heard was made by German carp sucking the scum on top of the water and around logs, driftwood, etc. I have speared them in the act and have dropped a hook in their mouths. If Mr. Covert will be quiet while watching them he will often see their round yellow mouths taking the scum.

F. D. Gardner, Brodhead, Wis.

If Mr. T. F. Covert will watch closely the next time he goes near that driftwood I think he will find that the tapping sound he mentions is made by suckers or redhorse feeding on the old driftwood.

I. N. Hardy, Central City, Colo.

Say to Mr. T. F. Covert that those strange sounds he heard while fishing in Little Beaver creek are caused by suckers feeding on the moss and sediment that adhere to the drift.

Levi Ballard, Paonia, Colo.

The noise that mystified Mr. Covert was made by a fish of the sucker variety.

J. L. Whinery, Marshalltown, Iowa.

MURDEROUS CROWS.

In February RECREATION someone asks if any reader knows the habits of crows. In Indiana we have many crows. I am not a friend of the black thief, as we call them, because they steal the bait that we use to trap minks and skunks. Crows are wise and cunning. They are fond of young squirrels, birds and rabbits. I was brought up on a farm near heavy woods, where I could learn the habits of crows. I have seen an old female crow find a squirrel's nest with the young in it and catch them. She would stick her head in the nest, take them out, and feed

them to her young crows. I have seen a crow find a young bird on the ground, that was unable to fly, kill it, carry it off somewhere and eat it. I have also found old rabbits that had been killed by crows. I once tracked a rabbit out in a stubble field and found where it had made a place in a bunch of grass to sit in through the day. Later the same rabbit was caught and killed by crows, and all that was left were the bones to tell the story of Mister Rabbit. I have found many such cases in hunting rabbits.

H. C. Beahler, Rosland, Ill.

BREEDING FUR-BEARERS.

Can beaver, otter, marten, fisher and mink be bred in captivity? Would I be successful if I should corral about 500 acres, with creek running through the tract from a neighboring lake, put each species in a separate enclosure, so each would have a share of the creek, and give them their liberty? Would you advise me to keep the males from all the above or from any one of them? If I kill off 2-3 of the males each year would it be safe to let the remainder run at large among the females?

H. F. Shipley, Storlie, N. D.

ANSWER.

The animals named can be bred in captivity; but no man has yet found a way to breed them at a profit. Not being a prophet, I can not say whether you would be successful or not in attempting to breed fur-bearing animals on a tract of 500 acres. The only way to find out is to try it. During the season of bearing and rearing young the females should be kept separate from the males. At other times there would be no danger in allowing the 2 sexes to run together.—EDITOR.

FLIGHTS OF SNOWY OWLS.

I saw in April RECREATION a query from F. S. W., Elk Rapids, Mich., about the occurrence of the flights of Arctic, or snowy, owls. These flights are probably due to storms of especial severity in the Northern regions. About 5 years ago a number of these owls were taken along the Hudson river and in the Northern part of this State and New Jersey. Some of these owls were said to fish in the Hudson river, diving for their prey like the osprey. This year the birds appear remarkably numerous. The New York Zoölogical Society has received specimens from Minnesota and Long Island to the number of 10. Probably the most remarkable flight on record was about 1850, when some 60 of these birds were said to have rested in the rigging of a ship in the North Atlantic ocean. This story I have on good authority, it having been published in several standard works on natural history.

T. Barbour, New York City.

RODENTS EAT SHED HORNS.

The inquiry in March RECREATION by E. E. Munn regarding deer horns called to my mind several things I have noticed. In the spring of 1880 I passed through a grove of juniper and mahogany trees covering about 20 acres, that had been the winter quarters of a bunch of mule deer. At that time I saw at least 30 pairs of horns. A few years later I passed over the same ground, and was surprised to find only 2 or 3 horns, and they were almost entirely eaten by rodents. Since then I have noticed that a pair of horns left in the woods will be eaten in a short time. As deer are less numerous in this locality than they were a few years ago, it is hard to find any horns in the woods that have lain there longer than a year. I saw one deer killed in November with horns still in the velvet, and have seen a few deer carrying their old horns in April.

S. R. O., Klamath Agency, Oregon.

NATURAL HISTORY NOTES.

One day about noon I saw a peculiar object floating in the air a short distance away. It proved a large spider web, much resembling a parachute. About 3 feet below it was a spider, suspended by threads from the main body, which was about 2 feet across. I followed it on a run for over half a mile, but it kept above my reach, sometimes only a few feet, and at others fully 50. Finally at the top of a hill overlooking the Chemung river at least 150 feet, I lost sight of the little adventurer and his balloon, as he floated out over the valley. If others of your readers have seen spider balloonists I should be glad to hear of it.

J. B. Bray, Waverly, N. Y.

Chicago.—The Illinois Audubon society is going to strike a blow at the root of the fashion of wearing sea gulls and terns for hat decorations. The society has decided that moral suasion with the women is not effective, and that the people to get after are the dealers. Every millinery house in Chicago, wholesale and retail, is to be served with a notice that the selling of skins of gulls, terns and song birds is illegal under the law of Illinois. The name of each bird which it is forbidden to buy or sell will be given, in order that ignorance can not be pleaded as an excuse for law violation. A committee chosen by the directors of the society will visit the retail milliners, and after an inspection of the stocks will point out to responsible persons the birds which it is unlawful for them to sell. The committee will then request that the prohibited bird skins be returned to the supply house from which they were bought. If the merchants agree to do this they will avert prosecution.—Exchange.

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Allegheny,	S. H. Allen,	Natrona.
Beaver,	N. H. Covert,	Beaver Falls.
"	W. R. Keefer,	"
McKean,	C. A. Duke,	Duke Center.
"	L. P. Fessenden,	Granere.
"	Wm. Holsinger,	Stickney.
Lack,	Wm. Weir,	Moosic.
Carbon,	Asa D. Hontz,	East Mauch Chunk.
Cumberland,	J. C. Gill,	Mechanicsburg.
Wyoming,	Cyrus Walter,	Tunkhannock.
Tioga,	E. B. Beaumont, Jr.,	Lawrenceville.
"	G. H. Simmons,	Westfield.
Lycoming,	Jas. J. Brennan,	Oval.
"	B. D. Kurtz,	Cammal.
Delaware,	Walter Lusson,	Ardmore.
Montgomery,	L. C. Parsons.	Academy.
Bradford,	Geo. B. Loop,	Sayre.
Clarion,	Isaac Keener,	New Bethlehem.
Cameron,	Harry Hemphill,	Emporium.
Clinton,	M. C. Kepler,	Renovo.
Northumberland,	G. W. Roher,	505 Anthracite St., Shamokin.
Elk,	D. R. Lobaugh,	Ridgway,

LOCAL WARDENS IN MICHIGAN.

County.	Name of Warden.	Address.
Ottawa,	W. H. Dunham,	Drenthe.
Kalamazoo,	C. E. Miller,	Augusta.
Berrien,	W. A. Palmer,	Buchanan.
Cass,	Thomas Dewey,	Dowagiac.
Hillsdale,	C. A. Stone,	Hillsdale.

LOCAL WARDENS IN VIRGINIA.

Mecklenburg,	J. H. Ogburn,	South Hill.
King William,	N. H .Montague,	Palls.
Smythe,	J. M. Hughes,	Chatham Hill.
King & Queen,	R. D. Bates,	Newtown.
Louisa,	J. P. Harris,	Applegrove.
Henrico,	W. J. Lynham,	412 W. Marshall Richmond.
East Rockingham,	E.J.Carickhoff,	Harrisonburg.

LOCAL WARDENS IN WYOMING.

Fremont,	Nelson Yarnall,	Dubois.
Uinta,	S. N. Leek, F. L. Peterson,	Jackson.
Carbon,	Kirk Dyer,	Medicine Bow.
Laramie,	Martin Breither,	Cheyenne.

LOCAL WARDENS IN TENNESSEE.

Sumner,	W. G. Harris,	Gallatin.
Stewart,	John H. Lory,	Bear Spring.
Robertson,	C. C. Bell,	Springfield.
Montgomery,	P. W. Humphrey,	Clarksville.

LOCAL WARDENS IN NEBRASKA.

Hall,	E. C. Statler,	Grand Island

LOCAL WARDENS IN NEW HAMPSHIRE.

Cheshire,	S. C. Ellis,	Keene.
Sullivan,	G. A. Blake,	Lempster.
"	J. W. Davidson,	Charlestown.

LOCAL WARDENS IN VERMONT.

Rutland,	Wm. J. Liddle,	Box 281, Fair Haven
Windsor,	F. A. Tarbell,	West Bridgewater.
Orleans,	E. G. Moulton,	Derby Line.
Essex,	H. S. Lund,	Granby.

LOCAL WARDENS IN ILLINOIS.

Rock Island,	D. M. Slottard,	12th Ave and 17th St.. Moline.
Iroquois,	J. L. Peacock,	Sheldon.

LOCAL WARDENS IN OKLAHOMA.

Kiowa and Comanche Nation,	A. C. Cooper,	Ft. Sill.

LOCAL WARDENS IN IOWA.

Clinton,	D. L. Pascol,	Grand Mound.
Pattawattamie,	Dr. C. Engel,	Crescent.

LOCAL WARDENS IN WASHINGTON.

Okanogan,	James West,	Methow.
Stevens Co.,	Jacob Martin,	Newport.

LOCAL WARDENS IN UTAH.

Washington,	S. C. Goddard,	New Harmony.

LOCAL CHAPTERS.

Albert Lea, Minn.,	H. A. Morgan,	Rear Warden.
Angelica, N. Y.,	C. A. Lathrop,	"
Augusta, Mont.,	H. Sherman,	"
Austin, Minn.,	G. F. Baird,	"
Austin, Pa.,	W. S. Warner,	"
Boston, Mass.,	Capt. W. I. Stone,	"
Buffalo, N. Y.,	H. C. Gardiner,	"
Cammal, Pa.,	B. A. Ovenshire.	"
Charlestown, N. H.,	W. M. Buswell,	"
Cheyenne, Wyo.,	J. Hennessy,	"
Cincinnati, Ohio,	B. W. Morris,	"
Coudersport, Pa.,	I. L. Murphy,	"
Cresco, Iowa.,	J. L. Platt,	"
Davis, W. Va.,	J. Heltzen,	"
Dowagiac, Mich.,	W. F. Hoyt,	"
East Mauch Chunk,	Pa., E. F. Pry,	"
Evansville, Ind.,	F. M. Gilbert,	"
Fontanet, Ind.,	W. H. Perry,	"
Ft. Wayne, Ind.,	W. L. Waltemarth	"
Great Falls, Mont.,	J. M. Gaunt,	"
Heron Lake, Minn.,	K. C. Buckeye,	"
Hollidaysb'g, Pa.,	H. D. Hewit,	"
Hopkinsville, Ky.,	Hunter Wood,	"
Indianapolis, Ind.,	Joseph E. Bell,	"
Jerome, Ariz.,	Dr. L. A. Hawkins,	"
Johnsonburg, Pa.,	W. J. Stebbins,	"
Kalispell, Mont.,	John Eakright,	"
Keene, N. H.,	F. P. Beedle,	"
Kingfisher, Okla.,	A. C. Ambrose,	"
Lake Co., Ind.,	Dr. R. C. Mackey,	Rear Warden.
Loganpsort, Ind.,	E. B. McConnell,	"
Ludington, Mich.,	G. R. Cartier,	"
Mechanicsburg, Pa.,	Dr. J. H. Swartz,	"
Minturn, Colo.,	A. B. Walter,	"
New Albany, Ind.,	Dr. J. F. Weathers,	"
New Bethlehem, Pa.,	Isaac Keener,	"
Penn Yan, N. Y.,	Dr. H. R. Phillips,	"
Princeton, Ind.,	H. A. Yeager,	"
Reynoldsville, Pa.,	C. F. Hoffman,	"
Ridgway, Pa.,	T. J. Maxwell,	"
Rochester, N. Y.,	C. H. McChesney	"
St. Paul, Minn.,	O. T. Denny,	"
St. Thomas, Ont.,	L. J. Hall,	"
Schenectady, N. Y,	J. W. Furnside,	"
Seattle, Wash.,	M. Kelly,	"
Syracuse, N. Y.,	C. C. Truesdell,	"
Terre Haute, Ind.,	C. F. Thiede,	"
The Dalles, Ore.,	C. B. Cushing,	"
Walden, N. Y.,	J. R. Hays,	"
Wichita, Kas.,	Gerald Volk,	"
Winona, Minn.,	C. M. Morse,	"

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The following firms have agreed to give members of the L. A. S. a discount of 2 per cent. to 10 per cent. on all goods bought of them. In ordering please give L. A. S. number:

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The Bostwick Gun and Sporting Goods Co., 1528 Arapahoe St., Denver, Col.
James Acheson, Talbot St., St. Thomas, Ontario, Sporting goods.
Jespersen & Hines, 10 Park Place, New York City.

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Dr. W. A. Valentine, 5 W. 35th street, New York City.
A. A. Anderson, 6 E. 38th street, New York City.
A. V. Fraser, 478 Greenwich street, New York City.
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E. T. Seton, 80 W. 40th street, New York City.
J. H. Seymour, 35 Wall street, New York City.
A. G. Nesbitt, Maple street, Kingston, Pa.
D. C. Beard, 204 Amity street, Flushing, L. I.
C. H. Ferry, 1720 Old Colony Bldg., Chicago, Ill.
Hon. Levi P. Morton, 681 5th avenue, New York City.
H. Williams, P. O. Box 156, Butte, Mont.
D. B. Fearing, Newport, R. I.
E. H. Dickinson, Moosehead Lake, Me.
Lorenzo Blackstone, Norwich, Conn.
A. L. Prescott, 90 W. Broadway, New York City.
G. S. Edgell, 192 Broadway, New York City.
W. B. Mershon, Saginaw, Mich.
Hon. H. W. Carey, East Lake, Mich.
George Carnegie, Fernandina, Fla.
Andrew Carnegie, 2nd, Fernandina, Fla.
Morris Carnegie, Fernandina, Fla.
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C. E. Butler, Jerome, Ariz.
Mansfield Ferry, 183 Lincoln Park, Boulevard, Chicago, Ill.
Austin Corbin, 192 Broadway, New York City.
J. Stanford Brown, 241 South 5th street, Reading, Pa.
W. H. Smith, Bryn, Mawr, Pa.
E. B. Smith, Bourse Bldg., Philadelphia, Pa.

There are thousands of men in the United States who should be life members. Why don't they join? Will someone please take a club and wake them up?

SENATOR HOAR WORKS WITH US.

Washington, D. C.

Editor RECREATION:

I have your letter transmitting to me copies of 6 resolutions adopted by the League of American Sportsmen at its annual meeting, and I have given them my careful attention. I shall do my best to comply with the desire of your League that the destruction of our wild animals, such as elk, moose, buffalo and antelope, be prevented. I shall also do my best to prevent their destruction, extermination and slaughter by leagues of sportsmen. I have no respect whatever for the pursuit of birds, and gentle, harmless wild creatures, like deer and antelope, as they strive to escape their persecutors, with broken wings and legs, hunted with dogs, and tortured with deadly fear, which, I suppose, is the cruelest torture of which animal nature is capable. I hope that the animals will not be suppressed and that the sportsmen will.

Geo. F. Hoar.

The resolutions which Senator Hoar refers to were printed in April RECREATION, so that my readers are already familiar with them. Senator Hoar is well known to all reading Americans as a staunch friend of the birds and wild animals. His objections to the methods of sportsmen are well taken, and his opposition to the killing of birds and animals under the name of sport is shared by many thousands of good people. I, however, recognize the fact that it is impossible to abolish the use of firearms as an adjunct of outdoor recreation. It is impossible to entirely stop the killing of birds and animals as an adjunct of sport. We have greatly reduced the killing, and that is what the League of American Sportsmen was organized for. We have almost totally wiped out the brutal side hunt which prevailed so generally up to a few years ago. We have nearly stopped the sale of game. We have abolished the millinery traffic in the plumage of song and insectivorous birds. We have shortened the season of killing in nearly all the States, and have, in many States, limited the number of birds and animals which any man may kill in a day. Therefore the venerable Massachusetts Senator must agree that the League has done a great work, and thus far must approve it. In fact, he has told me in private conversation that he does approve it. We are indebted to him for supporting nearly every measure which the League has put forward for the protection of birds and wild animals; and while we can not agree with his radical views as to prohibiting all killing, we value him and honor him for what he has done in our behalf and in behalf of the wild creatures he so dearly loves.—EDITOR.

WHAT A MONTANA MAN SAYS OF THE ANNUAL MEETING.

J. M. Gaunt has returned from Indianapolis, where he represented Montana at the annual convention of the League of American Sportsmen. Mr. Gaunt reports a most enjoyable trip and session of the League, and returns a much more enthusiastic member of the League than ever before.

"Although I have been a member of the League several years," he said, "I never before realized how great and powerful an organization it is. It has had a remarkable growth in membership in the past year and it is a great power in shaping needed legislation for the protection of game of all kinds, song birds, and insectivorous birds.

"The matters of probably the greatest interest to Montana sportsmen on which the League took action were concerning the deportation of the Cree Indians to their native land, Canada, the project of making all forest reservations game preserves, and the adoption of a resolution, calling on the Indian department to direct that no Indian shall be permitted to leave a reservation bearing arms.

"One of the most interesting features of the meeting was the reports of progress made in the enforcement of the Lacey game law. Dr. Palmer, who is in charge of this enforcement, requests all sportsmen to notify him by telegraph of any violation of the law, and on receipt of such notice he immediately instructs the United States marshal who can most easily do so to confiscate the game illegally killed, shipped or stored, and to arrest those violating the law.

"Action of the League that was particularly gratifying to the Western delegates was the decision that the next meeting, to be held next February, shall be in St. Paul. Each year the meeting place is moving Westward, and we may in time get it to Montana.—Great Falls, Mont., Tribune.

I am sending out from my home 40 or 50 circular letters to my sportsmen friends in able replies to some of them. I expect to have the application of our representative in the State Legislature, Mr. Hagenbuch, in a day or 2. We intend if possible to enroll 200 names in this county. We have set our mark high, but we want to make this the best protected county in the United States. Mr. Gleason will help us.

A. C. Thatcher, Urbana, Ohio.

THE LEAGUE DID IT.

There are a lot of pot hunters in Johnsonburg, Pa., who for many years have held a side hunt about Thanksgiving time. Some months ago a good sportsman in that town stirred up others of his kind and sent in 41 applications for membership in the League. A local chapter was organized and League posters were put up throughout the county. League literature was liberally circulated among the pot hunters, and the result is that the customary Thanksgiving side hunt was cut out last year. Yet the editor of the A. D. G. H. predicted 4 years ago that this League would not "accomplish any important achievement."

FORESTRY.

EDITED BY DR. B. E. FERNOW,
Director of the New York School of Forestry, Cornell University, assisted by Dr. John C. Gifford of the same institution.

It takes thirty years to grow a tree and thirty minutes to cut it down and destroy it.

THE FOREST, FISH AND GAME COMMISSION.

The annual report for 1900 of the New York State Forest Commission was issued some time ago from the Government printer at Albany. The report of the Commission itself is brief, not quite 3 pages, but is supplemented by reports of the superintendent of forests, and a lengthy extract from the report of the assistant superintendent.

The matter of most interest in the Commission's report is its reference to "extensive experiments in tree planting, made by the Commission, which have shown that at a remarkably small expense these barren places can in time be replaced by a healthful and valuable forest growth."

Anyone consulting the reports of the superintendent of forests and of his assistant superintendent contained in the same volume, will smile at the basis for the statement of the Commission. For there we read, that the "extensive experiments" carried on by the Commission consisted in the planting in the Catskills of 6,000 little seedlings of pine and spruce, a gift of the New York State College of Forestry, which, with the greatest stretching, could not cover more than 4 acres of ground, and which were planted by the assistant superintendent and his assistant with a few friends at a "planting bee."

No wonder that under such conditions, the plant material a present, the labor gratuitous, the expense was small.

The College of Forestry has for 3 years been engaged in this kind of planting, has planted 150 acres of brush and waste land besides 105 acres of cut-over land, and set out altogether over 230,000 seedlings; has large nurseries established to furnish the plant material and has sold to the Commission 420,000 seedlings to continue its experiments. The cost of planting seedlings can hardly be kept below $6 to $10 an acre, although by sowing the cost may be considerably reduced.

The condemnation of the wood alcohol or acetic acid industry, which the Forest, Fish and Game Commission indulges in, while advocating the cutting of spruce for wood pulp, is, to say the least, inconsistent. If the industry is a nuisance, it will be proper to condemn it; but to suppress it because it uses small hardwoods is peculiar. The wood alcohol manufacturer is to the hardwood industry what the paper pulp manufacturer is to the softwood industry. Both use or can use small stuff, and it is the utilization of the small stuff resulting from cleanings and thinnings and limbage in general that makes forestry at all possible. The dry distillation of wood, which is also the modern method of charcoal manufacture, is an industry that needs encouragement and extension in proper direction. It does no injury to the forest; in fact, it is essential for the utilization of forest rubbish. It is right to restrict all industries which are a nuisance and which actually do damage; but to single out the acid factory, the necessary and highly utilitarian concomitant of the hardwood industry, is most erratic and unjust. To recommend the preservation of our forests for industrial purposes on one page and then to summarily condemn the manufacture of charcoal, wood alcohol, pyroligneous and acetic acid, etc., on another is a most inconsistent position.

The Commission recommends in one place that "scientific conservative forestry" be applied to the Adirondack forest, and in another recommends the "prevention of the cutting of hardwoods for commercial purposes." If this is forestry, it would be as well to leave the constitutional amendment preventing all cutting just as it is, for an indefinite period of time. The practice of forestry under such circumstances would be little better than poor lumbering, and worse than the let-alone policy which is now in force. It seems a pity, also, to prevent the cutting of hardwoods for "commercial purposes," and not for any other purpose, if there is any.

Perhaps the Commission has overlooked the recommendations of the working plan of Township No. 40, made for the Commission by the Bureau of Forestry of the United States Department of Agriculture. This working plan recommends the cutting of softwoods down to certain diameter limits, for purposes of revenue making, but with silvicultural accompaniments. It also recommends the "utilization of all mature and defective hardwoods," whenever it can be done profitably, and suggests the construction of a mill, a dam, a railroad and acid and other factories, if need be, to aid in the process of judicious utilization. In fact, the report concedes that the better practice would be to remove the hardwoods first and the softwoods afterward.

Well meaning people often shed tears needlessly over what appears to be denudation. It is often a good plan to cut the forest and burn over the soil in places

where large masses of duff have accumulated. This duff, undecomposed, is mechanically unable to start a healthy crop of coniferous seedlings. It is often necessary to expose the mineral soil to insure regeneration. It is only in particular portions, which are necessary for protective purposes, that this process of treatment would be detrimental, as on all the mountain tops, rough mountain sides and lake shores, which should perhaps be left untouched.

The truth of the whole matter is, apparently, that neither the Commission, the Legislature, nor the people of the State of New York know just what they want in reference to the Adirondacks, and the advice of the Governor recommending caution until a definite policy can be evolved is good. Nothing is more detrimental to the practice of forestry than constant change and uncertainty. After a definite policy is once decided on, then the proper move would be to stick to it in spite of public opinion, and to take the money used in the publication of voluminous, beautifully illustrated reports for the employment of a trained, well organized body of professional foresters, not merely natives of the region in which they are to work, to put this policy into execution, in spite of what hotel men, campers, guides, hunters or other individuals may think. The preserve belongs to the whole people of the State of New York, who have paid for it by taxation, and not to the few who live or go there.

NEWSPAPER PAP.

The New York *Herald* for Sunday, February 23, contained the following interesting note:

"New York State has given deep offense to the Italians, and to persons of English birth living in this city, and it is said the matter has been, or will be, called to the attention of the 2 foreign governments. The offense was committed in the last report of the Fisheries, Game and Forest Commission.

"In an article written by Dr. John Gifford on 'European Forest Scenes,' reference is made to the science of forestry in various countries. The Italian residents of New York take great offense at what is considered an uncalled-for attack on their home government. Referring to Italy, Dr. Gifford said: 'The people of Italy are, on the whole, good; but the government is bad.'

"It is asserted that this matter has been robbed of its lack of importance by the fact that it has been made an official document by the State of New York. The Italians, however, do not know just what action to take, as their representative is accredited to the United States and has nothing to do with the State Government. On the other hand, New York State can not well be called to account in a matter of this sort from Washington.

"Englishmen have a special grievance against Dr. Gifford. He seems to believe that the sons of old England are a degenerate lot. Referring to them he has said:

"'With the destruction of the forests in England have gone the stalwart men who once worked in them, to be replaced by the factory hand, knock-kneed, weak-lunged and sallow. Judging from what I saw during a recent visit to the big towns of England, I should say that England could better afford to pay $100,000,000 for foreign wood than to lose the broad shouldered and muscular men who once worked in her forests.'

"Thus far Dr. Gifford has not been called to account and has volunteered no explanation of the remarks."

The above was probably written to fill an aching void. Dr. Gifford has volunteered no explanation because none is needed to the person who reads his article with any degree of care. To call the "Italian people good and the government bad" is, indeed, a peculiar offense. The writer of the newspaper squib forgot to notice that the offense to England was quoted from an article by an Englishman, for which he received a prize in England.

THE PRESIDENT ON FOREST PRESERVATION.

While there is still among the public at large a considerable misconception of what forestry and forest preservation involve, as is evidenced by the unwarranted attacks on the methods of the College of Forestry in managing its demonstration forest, President Roosevelt, in his annual message, put the matter in such simple and thoroughly intelligent words that everybody should learn them by heart:

"The fundamental idea of forestry is the perpetuation of forests by use. Forest protection is not an end of itself; it is a means to increase and sustain the resources of our country and the industries which depend on them."

No word of comment is needed.

Investigation shows that the Northern dwarf mistletoe is common on the black spruce in the Adirondacks. It is parasitic, causes deformity of the tree and in the aggregate does considerable damage. The large bunches which it causes are called witches' brooms.

PURE AND IMPURE FOODS.

"What a Man Eats He Is."

Edited by C. F. LANGWORTHY, PH. D.

Author of "On Citraconic, Itaconic and Mesaconic Acids," "Fish as Food," etc.

LILY BULBS EATEN BY CHINESE.

Though we are accustomed to consider lilies as plants for ornamental value only, the bulbs and flowers of several species have long been used as articles of food by the Chinese and other orientals. Of these, *Lilium glehni* forms the chief vegetable diet of the Ainu, an aboriginal tribe now confined to the islands of Hokaido, but *Lilium tigrinum* and *Lilium concolor pulchellum* are the 2 species most commonly cultivated by the Chinese as articles of food. A recent investigator found the bulbs of *Lilium parrum* in use by the Washoe Indians of Nevada, and those of *Lilium pardalinum* in use by Indians of Northern California.

From the early part of December to the latter part of August, according to a recent report made by Blasdale to the Department of Agriculture, there are found in the Chinese markets of San Francisco the bulbs of a species of *Lilium* which greatly resemble those of the well known *Lilium auratum.* These are sold at 10 to 20 cents a pound. They are all imported from Canton. The bulbs have proved identical with the ones sold by nurserymen under the name of *Lilium brownii.* This is apparently the only species sold by the Chinese merchants, as a large number of bulbs purchased at different times and from different dealers have invariably yielded plants corresponding to this species. Unfortunately the bulbs are often infested with mites, which, either primarily or secondarily, cause the death of the plant before it perfects its flowers. From a collection of over 100 bulbs only 10 perfect flowers were secured.

What seems to be the same species may also be obtained in a dry form throughout the year, and both this and the fresh bulbs are known under the name of "pak hop."

The dried bulbs, as shown by analyses, contain some 10 per cent. water, 5.6 per cent. protein, 63 per cent. starch, and small quantities of ash, etc. The fresh bulbs purchased in San Francisco contained much more water, and correspondingly smaller quantities of nutrients.

The Chinese regard lily bulbs more as a delicacy than as a standard article of diet, and the customary price is considerably above that of other vegetables in common use by them. It is said that they are regarded by the Japanese as an especially desirable food for invalids and convalescents. When used for this purpose the bulbs are only slightly cooked and are eaten with sugar. The bulbs sold in San Francisco, as far as was observed, were nearly devoid of the bitter principle which is reported to occur in several species of *Lilium.* When simply boiled, they formed a palatable food, and Blasdale believes that Americans would soon become accustomed to their use. The cultural conditions favorable to the production of *Lilium brownii* or of some of the other edible species are not difficult to find in our own country, though it is doubtful whether they can be grown as cheaply as our other commonly cultivated vegetables. One valuable feature of the bulbs is the ease with which they may be dried, the resulting product being quite as acceptable as the fresh bulbs. The value of lilies as ornamental plants under present conditions will doubtless prevent their extended use as food in this country.

Another unusual vegetable substance largely used as a flavoring ingredient by the Chinese consists of the dried flowers of *Hemerocallis fulva,* the day lily of our American gardens. This substance is known as "kam cham t'soi," or the "gold-needle vegetable." The flowers of *Lilium bulbiferum* and *Hemerocallis graminea* are also used as food by the Chinese. The dried flower petals contain some 10 per cent. protein and some 56 per cent. carbohydrates. When judged by their composition, they are seen to possess a fairly high food value. They are used, however, rather as a condiment than as an article of diet.

THE BLUEBERRY INDUSTRY.

Although from the earliest Colonial times the blueberry has been highly prized as an article of food, little attention has been given to the systematic exploitation of this fruit. In many regions of the Northern and Eastern United States, particularly in New England, New York, Michigan and the mountains of Pennsylvania and West Virginia, there are thousands of acres of land which are worthless for ordinary agricultural purposes. After the pine is removed from such lands, an abundant growth of blueberry bushes, alders, poplars, grey birches and spireas springs up. It is believed that by proper management of these natural blueberry fields large areas may be made to yield a handsome profit to their owners, and furnish employment to a large number of people.

At the present time these lands, for the most part, are considered public property,

and irresponsible persons, recognizing the fact that the blueberry crop is more abundant on young bushes which spring up after a fire, recklessly burn over vast areas, thus destroying valuable forests for their own selfish ends. As described by Professor Munson, of the Maine Agricultural Experiment Station, the method of harvesting blueberries is somewhat as follows:

The land is divided into several tracts, each of which is leased to some responsible party who assumes the whole care of burning, keeping off trespassers, harvesting and marketing the fruit. The owner receives, as rental, one-half cent a quart for all the fruit gathered. The pickers receive 1½ to 3 cents a quart; those who lease the land and haul the fruit to the canning factory, or to the station for shipment, one-half to one cent a quart; the rating being determined, in accordance with the market value, by the firm which handles the product. The fruit is all canned or shipped by one firm, which pays the royalty to the owner.

Every year a certain section of each lease is burned over. This burning must be done early in the spring, before the soil becomes dry; otherwise the fire goes too deep, the *humus* is burned from the ground and most of the bushes are killed. Many hundred acres on what should be the best part of the "barrens," as the blueberry lands are termed, have thus been ruined. Each section is burned every third year.

By far the largest proportion of the fruit is taken to the factories for canning. Early in the season, however, before the factories are opened, a considerable quantity is shipped, usually in quart boxes, to the larger cities, for use while fresh. With the exception of currants and gooseberries, blueberries will stand rough handling better, and will keep longer than other small fruits.

All the early fruit is picked by hand, and only the ripe berries are gathered. Later in the season, particularly on "old burns," that is, on areas which have not been burned over in some time, but which are to be burned the next year, the fruit is gathered with a blueberry rake. This is an implement somewhat similar to the cranberry rake in use on Cape Cod, and may be likened to a dustpan, the bottom of which is composed of stiff, parallel wire rods. The fruit may be gathered much more quickly and more cheaply by means of the rake. The bushes are, however, seriously injured by the treatment. In no case should the rake be used in gathering high bush blueberries. As the berries are gathered they are passed through a fanning mill before being sent to the canning factory; and again at the factory, they are submitted to a stronger winnowing. This is usually the only preparation necessary.

ON THE CANADIAN PACIFIC RAILWAY.

GERTRUDE F. LYNCH.

By whatever route you cross the continent, be sure that special attractions in the way of scenery will make the trip memorable; but it is safe to say that if you select the Canadian Pacific in preference to others, you will never regret the choice. Railroad traveling is, as a general thing, but a necessary evil between 2 certain goods—the place of departure and the place of destination. This general rule finds its notable exception on the Canadian Pacific, where the traveling itself is the all important consideration and the points of arrival and departure sink into insignificance, for all impressions and memories are for the time being blotted out by those created by the stupendous spectacles offered in this means of transit.

We, as representatives of RECREATION, boarded the cars of the C. P. R., at Vancouver. We were scenery-sated, for we had already crossed the continent and had spent weeks amid the marvels of the world. We believed that nothing could arouse our calloused sensibilities; we were sure we had not a thrill left in our whole nervous outfit. We did, however, look about the spacious car with its soft upholstery of restful color, note the quiet deftness of the attachés, as we were conducted to our section, and the general neatness of detail with satisfaction. One can easily exhaust one's power of enjoyment, but appeals to personal comfort are rarely made in vain. We determined, in the manner of *blase* travelers that, if we felt so inclined, we should ignore alluring prospectuses and turn our backs on the well advertised attractions of the route in order to enjoy the comfort and repose of our temporary home. No such inclination assailed us. Scarcely had the train left the station when the passengers began to leave the sleeper to seek the observation car in the rear. A few remained to keep us company, but they were soon dragged away by enthusiastic friends. We were the last to go, and following the example of the late comers, we remained the last. No one, I am sure, on that memorable trip displayed greater enthusiasm or has shown more unflagging zeal in reminiscence.

Through stupendous gorges, at the edges of canyons so deep that the head swims looking down, scaling mountains tipped with the everlasting snow, panting up grades so steep that 2 and 3 engines were brought into use, along the brink of yawning gulches magnificently colored, in gloomy snow sheds, reminders of the winters' wrath, we pursued our way. Words are inadequate to describe, they can merely suggest or perhaps invite. Nature, in this part of the world, has been generous in her

wrath. Chasms and steeps, ice and snow, rugged peaks and bottomless pits are here in abundance, with sullen grays, alluring greens and dazzling whites. She has flung her challenge to man, and man, bit by bit, here a little and there a little, has subtly and persistently enclosed her threats with the ring of his achievement—this ring the Canadian Pacific Railway. It is an achievement to be proud of! An achievement to be seen and admired.

Even to our feminine minds, untrained in technicalities, the engineering feat of carrying this road through and over these mountain fastnesses was awesome. Never for a second did we experience a feeling of instability or of physical dread. We felt as safe there on the brinks of precipitous cliffs as we did later on the rolling prairies.

Strength and skill are not the only qualities displayed by the makers of this road. Everywhere is shown a keen appreciation of its artistic possibilities. This is noted particularly in the locations chosen for the wayside inns where our meals were taken, during the first day and a half of our journey. At these places the train remains half or ¾ of an hour, as need be. We were ushered into flower-decked rooms where big open fires took the chill from the mountain air and even the scenery was forgotten for a little while as we gathered about the hospitably filled tables. The prairies come just in time. One could not stand the strain of this wonderful journey too long. We left Banff at night, and when we awoke we were on the plains, as in music the composer puts the bars of rest after the succession of stormy harmonies. Approaching from the West, Banff is really the climax of the journey. From the East it is promise of that which is to come. It has been made memorable recently by the visit of the Royal Couple, but it needs no royal approval to emphasize its attractions. Towering mountains enclose it as a gem is imbedded in its matrix. There are charming walks and drives, scenery which suggests Chamounix in the Alps—that most beautiful Swiss village; an hotel with every possible comfort and luxury from its cuisine to its sulphur baths, and an interesting assortment of cosmopolitan guests. There are other stopping points of interest where a day or 2 can be wisely spent, Glacier notably, which has also a fine hotel and scenery equally impressive.

In a word, take the Canadian Pacific Railroad either going or coming—both, if possible. To say that to cross the continent merely to return by that route would repay the traveler, is not saying too much; it is not saying enough.

PUBLISHER'S NOTES.

SUMMER FURNITURE.

The Old Hickory Chair Company, of Martinsville, Ind., is turning out a unique product. This is rustic furniture made entirely of hickory. The hickory groves of Indiana have long been famous, and "tough as hickory" is a local expression which represents the limit of endurance. No material could be better adapted than hickory for the manufacture of furniture suitable for country cottages, country clubs, log cabins, or other places where perhaps much hard usage would befall it. This company makes a large and attractive line of chairs, tables, settees, and other household pieces, as well as lawn and veranda seats, rustic bridges, summer houses, and even log cabins, notched and marked, ready to put up. All the framework of Old Hickory furniture is made of hickory saplings, with the bark on. This is a soft, quiet color, giving a rustic yet neat and artistic effect. The seats and backs of chairs are plaited by hand, of the inner hickory bark, which is of great strength. The material is all chemically treated, so it is free from germs and insect life.

The company issues a complete and handsome catalogue. Write them for it, and please say you saw their ad in RECREATION.

A NOVELTY FOR ANGLERS.

All anglers who fish much, and buy their minnows, will save money and annoyance by using a Fisk Aerating Minnow pail, made by J. M. Kenyon & Co. See their ad in this issue. The pail is so arranged that by means of an air pump and rubber tubes the water is constantly supplied with fresh air, which is necessary to keep the minnows alive.

I have one of these pails, which I have tested thoroughly, and find it works as the manufacturers claim it will. The pail contains a large air chamber in the bottom, into which air can be forced under a heavy pressure. Then it leaks out gradually into the bottom of the water chamber of the pail and comes up through the water, forming a stream of small bubbles. I have not made a test as to how long minnows could be kept alive in one pail of water, with this machine, but see no reason why they should not live in it indefinitely.

I have found Messrs. Kenyon & Company thoroughly reliable people and I feel confident that any reader of RECREATION who may order a minnow pail from them, and send his money in advance, will get just what he pays for.

A BUSINESS SUCCESS.

About 12 years ago Higgins & Seiter began business as dealers in glass and china in a small basement in West 22d street. Five times they have increased their room and facilities, and last summer they erected in conjunction with their 3 stores in West 22d street a 6 story building in 21st street. This is now amply stocked with the goods with which their name has become identified. The members of the firm attribute their growth largely to persistent advertising. There is not a month in the year in which the fact that they "sell glass and china ¼ less than elsewhere," is not kept prominently before the public. Much of their business is done through mail orders, from Maine to California.

The dinner table department always has an immense assortment of fine china and glass, and articles that are suitable for gifts are shown in a fascinating variety. Not only the choicest china and the richest cut glass are displayed, but also statuettes in marble and bronze, plaques, pedestals, hall clocks, candelabra, and finally paintings and water colors by well known artists.—New York Daily Tribune.

THE NECESSARY KODAK.

The Canadian government has officially recognized the Kodak as a necessary part of a camping outfit for hunting and fishing parties. In a circular issued by the Hon. John McDougald, Commissioner of Customs, dated at Ottawa, Canada, July 1st, 1897, he says, "Persons visiting Canada for health or pleasure may bring with them such guns, fishing rods, canoes, tents, camp equipment, cooking utensils, Kodaks, etc., as they may require while in Canada, etc." The circular goes on to provide that such outfits may be taken into Canada by depositing with the Collector, at the port of entry, a sum equivalent to the regular duty thereon, and that this sum will be refunded to the visitor on his return from the Dominion on presentation of receipts originally given him for the money by the customs officer.

This is indeed a well deserved recognition of the value of the Kodak for every hunter, angler or pleasure seeker.

MINING IN MONTANA.

Nearly one-third of the Wonderland book, for 1902, is devoted to mining in Montana, which dates from the early 60's.

The old mining days and the incidents of the time, most dramatic, are portrayed and photographs of the oldtime camps are given.

Many of these old historic spots, such as Alder Gulch, Confederate Gulch, etc., were visited by Mr. O. D. Wheeler, who wrote the book. The Montana mining of today, scientific in every detail, is also shown in its vast proportions.

To those interested in this subject and who desire to know the great value of the mining industry in Montana, this chapter will prove interesting and valuable reading. It is profusely illustrated.

If you want a copy of the book, you have only to send 6 cents to Chas. S. Fee, G. P. A., St. Paul, and mention RECREATION.

There was a serious mutiny in the United States penitentiary at Fort Leavenworth, Kan., in December last, in which several of the guards were killed, a number of the convicts killed and wounded, and some escaped, although they were mostly recaptured. It appears that the arms which the guards had on that occasion failed to work properly, and that was apparently one of the reasons why the convicts escaped. Such being the fact, it was decided by the United States authorities to call for sample arms for the purpose of testing, and to equip the guards with the arm which was most suitable and reliable. The Savage Arms Company was approached for sample arms, which were promptly shipped, and the Savage rifle was adopted. The order has been placed for entirely re-arming the guards with these rifles, although it is the highest priced rifle on the market.

Columbiaville, Mich.

Ithaca Gun Co., Ithaca, N. Y.:

Dear Sirs:—The Ithaca gun which you recently sent me on Mr. Shields' order as a premium for RECREATION subscribers is at hand, and is in every way satisfactory. I do not believe there is any other gun, selling for anywhere near the reasonable price of this one, that can equal it for beauty of workmanship and for close, hard shooting. Several of your guns are owned by sportsmen in this place, and are well liked. In a letter received from Mr. Shields a few weeks ago he assured me that your guns are first class in every respect, which is true. We all read RECREATION here, and like to see your ad looming up prominently in our favorite magazine. I shall always take pleasure in recommending your guns.

Yours truly, A. L. Vermilya.

A remarkable invention for the convenience of tourists is the new Goerz Photo-Stereo Binocular. This wonderful little instrument is in size and appearance an ordinary opera glass, and it serves that purpose. It is also a field glass, a simple camera and a stereoscopic camera; 4 necessities in one. It is small, light, strongly and perfectly made, and exceedingly powerful. It makes clear, sharp photos 1¾ by

2 inches, which admit of perfect enlargement. It gives either instantaneous or time exposures. As a field glass it magnifies 3½ times, and as an opera glass 2½ times. The photo lenses are Goerz double anastigmat. Write the C. P. Goerz Optical Works, 52 Union Square East, New York, for a descriptive circular and please mention RECREATION.

The Ideal Manufacturing Company is always on the alert to make tools and implements that will meet the needs of shooters. The latest device made by this Company is the Ideal shot shell trimmer. This is a practical implement that will properly trim paper shells that have been fired. With it the soft and frayed ends of shells that have been fired a number of times may be cut off to any length desired. This trimmer is made for all gauges.

Every shooter should have a copy of the latest Ideal Hand Book, full of information to shooters. It also gives description and price of all Ideal Implements, which should be kept by all dealers in arms and ammunition. Address Ideal Mfg. Co., New Haven, Conn., and mention RECREATION.

Mr. E. H. Fitch has bought the interest of A. E. Gehben in the old firm of D. T. Abercrombie & Co., and the new concern will be known as Abercrombie & Fitch. Mr. Fitch is a gentle brother of the angle, a big game hunter, a good wing shot and, in fact, an all around sportsman and lover of outdoor life. Everybody knows Mr. Abercrombie's qualifications for conducting a business such as he has been running for years, and in this new addition to his working strength the house will be able to do everything that any reasonable sportsman could wish done, in the way of providing complete camping outfits. I know Mr. Fitch personally, and bespeak for him the good will and the confidence of all readers of RECREATION.

E. W. Stiles, 141 Washington street, Hartford, Conn., has issued a new and attractive catalogue of goods made of buffalo horns. These include mirrors, gun racks, buffalo skulls mounted on shields, electric light fixtures in great variety, silver loving cups artistically mounted with buffalo horn handles, etc.

These horns are genuine buffalo, picked up on the Western plains. The articles made in combination with these horns form interesting and valuable American souvenirs of an animal now nearly extinct. Write E. W. Stiles for a catalogue of these unique goods and say you saw it mentioned in RECREATION.

The Charles Daly gun has long been a standard among the better class of shooters, but the price has been beyond the reach of thousands of men who have often wished they could have one of these guns. In response to this large demand, Schoverling, Daly & Gales, of this city, have now put on the market a Charles Daly gun which retails at $80. It has many of the good qualities of the high-priced Daly guns, but of course is not so highly finished. See the ad of the new Daly in this issue of RECREATION, and write the manufacturers for full particulars. Mention RECREATION.

Jespersen & Hines have been occupying only half of the store at 10 Park Place, New York, with their sporting goods business, but it has outgrown that capacity, so they have crowded the other man out and will hereafter occupy the entire store. They will add to their previous lines a full outfit of tents, boats, camping outfits, sportsman's clothing and many other things they have not heretofore kept in stock, so readers of RECREATION may feel safe in ordering almost anything they may want from that house, and their orders will always receive prompt and careful attention.

E. S. Applegate & Co., of Trenton, N. J., have been compelled by increase of business to move to still larger quarters, and have selected a more central location, at 17 South Broad street. They carry a much larger stock than heretofore of bicycles, guns, ammunition, fishing tackle, sporting and athletic goods. To these they have lately added canoes, gasoline launches and general boating supplies. Sportsmen would do well to write Messrs. Applegate & Co., at their new address. Please say you saw it in RECREATION.

Rolla O. Heikes, the veteran shooter of the scatter gun, recently established a new record for long range flying target shooting at Waco, Texas. Mr. Heikes broke 99 out of 100 targets with a run of 89 breaks without a miss, at 10 yards. This work speaks well for the uniformity in the velocity and pattern of his load—factory loaded U. M. C. shells.

Sea Breeze, Fla.

Drs. H. R. Phillips and Wrean,
Penn Yan, N. Y.

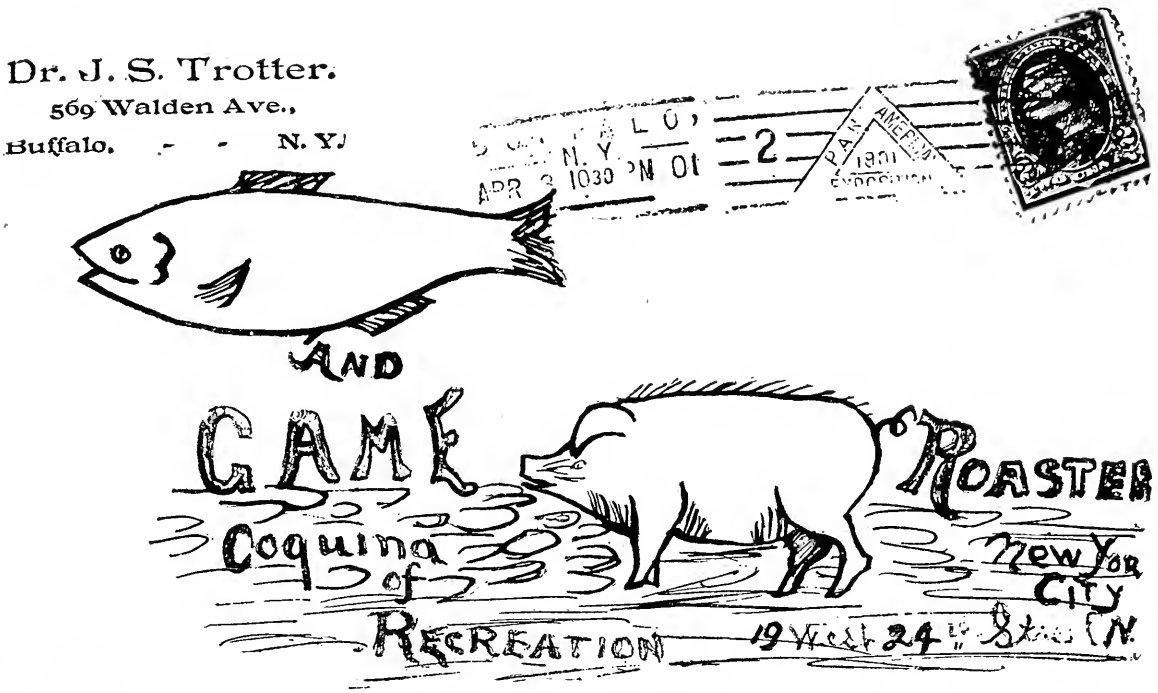
Dear Sirs: Rabbits and pedigrees arrived safe. The rabbits are in good condition and please me greatly. Yours truly,

C. M. Barlory.

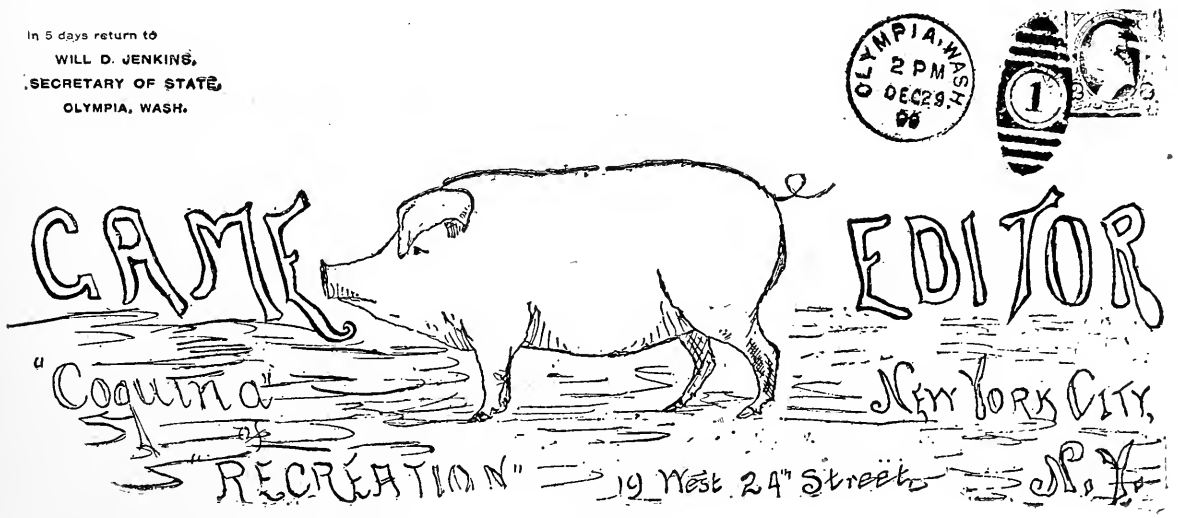
EDITOR'S CORNER.

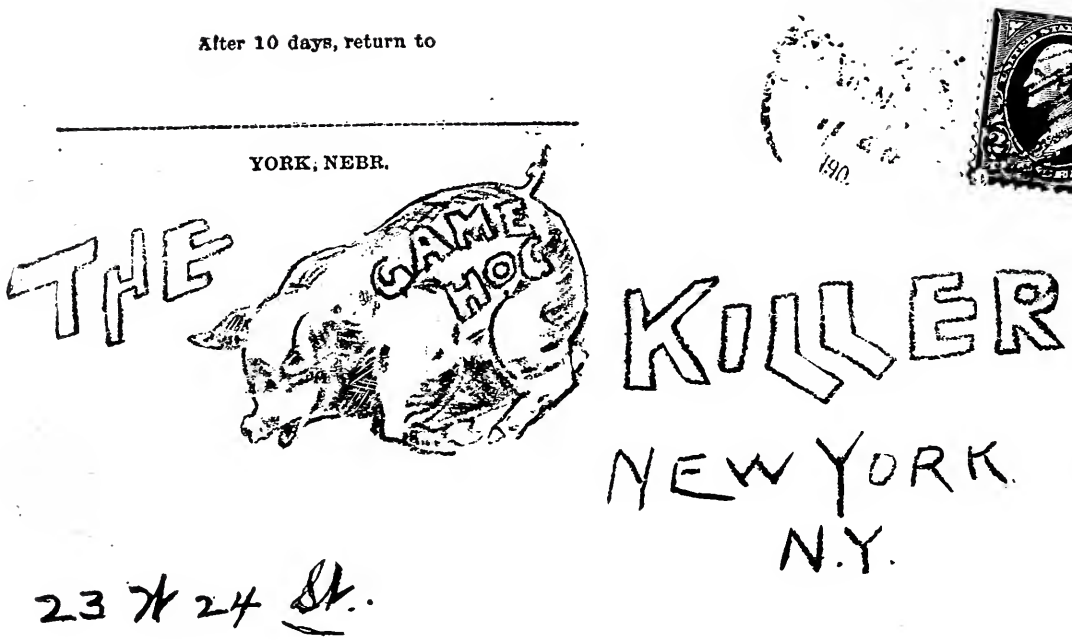
THE PICTORIAL SIDE OF THE GAME HOG WAR.

Many people say I talk too much about game and fish hogs. In fact, some of my best friends say this; but there are thousands of other good people who heartily approve everything I say and do in this line. I get great numbers of letters expressing this approval in words. Then, the extent to which my crusade appeals to the pictorial sense of my readers, is another indication. Here are reproductions of a few of the many envelopes that come to this office, bringing encouraging messages and hearty approval of my work. The first shown is from a prominent physician in Buffalo. Another comes from the Hon. W. D. Jenkins, Secretary of the State of Washington; another is from a well known business man of York, Neb., and still another from Glasgow, N. S.



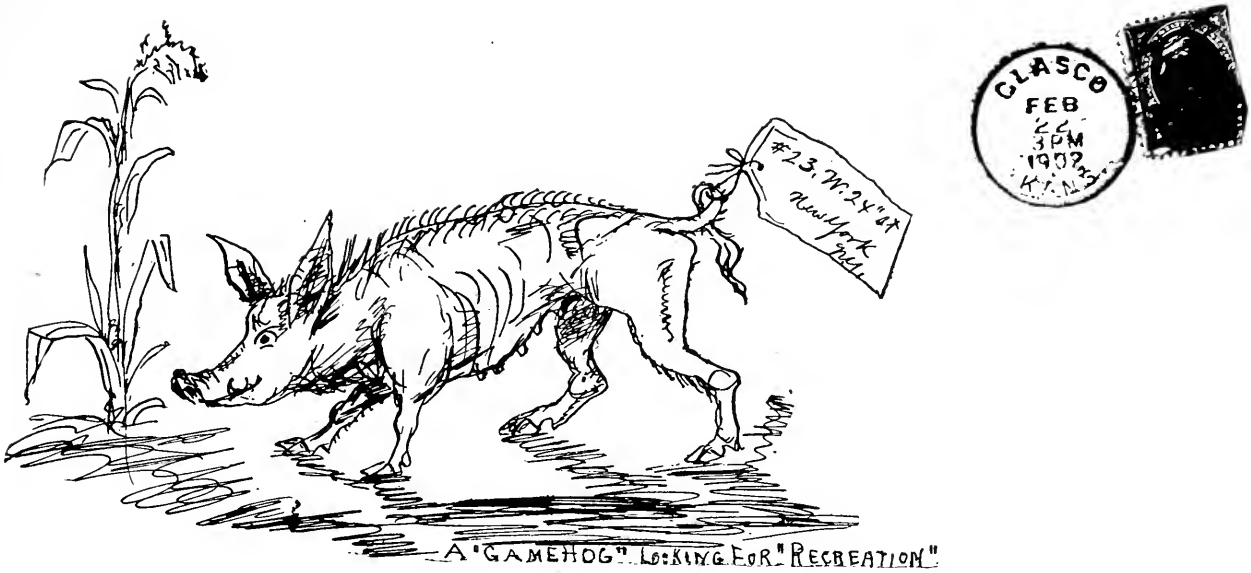
I have reproduced in RECREATION many pictures showing how the pork roasting business appeals to artists in various portions of the country. If I should print all of these, reducing each to a space 2 inches square, it would take at least 20 pages to hold them. Meantime, I hear of thousands





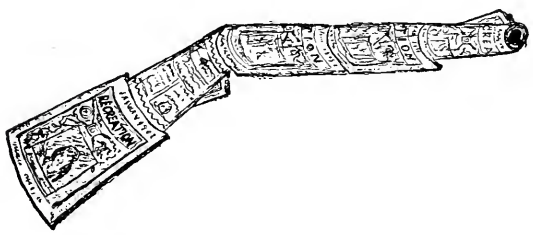
of men who still delight in slaughtering game, but who now exercise the utmost care in keeping their tracks covered, lest RECREATION find them. It is amusing to learn from the neighbors of some of these game and fish butchers how carefully the latter smuggle in their big bags and what precautions they take to keep the neighbors from hearing of them. There are still some who have not learned the lesson of the past few years, and who, when they make a big killing, rush madly to a local photographer, string up their game, stand up beside it, and get photographed. Then comes the inevitable. Some friend of the game gets a copy of the photograph, sends it to me, and in due time it appears in RECREATION, together with the names and addresses of the men who perpetrated the butchery. Then these men either reform or fall into the ranks of the skulkers and in future, when they return from their slaughtering matches, they sneak up the back alley after dark, tote their game into the kitchen and make the members of the household swear not to tell about it.

Ernest T. Seton tells of a case of this kind that came under his notice in New Mexico. A party of game hogs went from that State across the border into Texas,



and shot quails. They had what they called glorious sport for several days. They literally loaded their wagon with birds. Then they drove home in triumph. When they neared town they stopped, got out, and strung quails all over the wagon box

RECREATION



THE BEST MAGAZINE GUN EXTANT

UNEXCELLED PENETRATION,

ACCURACY NOT AFFECTED BY WIND

RANGE NOT YET ASCERTAINED

BUT KNOWN TO BE ACROSS THE CONTINENT.

THE BEST WEAPON FOR GAME HOGS.

EQUIPPED WITH SHIELDS FORESIGHT.

ASK COQUINA ABOUT IT.

and over the harness. They then drove up in front of the local picture gallery, got out some more quails, strung them over themselves, hung large bunches on their guns, stood about the team and had themselves photographed.

Meantime some decent citizen of the town who saw the disgusting array, went to the sheriff and reported the case to him. He was also a decent man, and went after the game hogs. When he questioned them they put up a defense to the effect that the game was not killed in New Mexico, but over the line in Texas. Hence, they said, they were exempt from the New Mexico law, and no Texas officer could follow them into New Mexico to arrest them.

"But," said a bystander, "just wait till RECREATION gets a copy of this picture."

"Who is RECREATION?" inquired one of the butchers.

"It's a magazine published in New York which gives such fellows as you what you deserve."

A hurried consultation was held and the game hogs decided it would be best not to have the pictures, after all. Then they called on the photographer again, countermanded the order and asked for the negative he had made. He was on to the scheme, and said:

"Nay, nay, Pauline, the negative is mine. I shall be glad to sell you any number of prints you may wish, but I shall not part with the negative. I can sell a print from it to a certain New York editor for many shekels."

"But," said the game hogs, "we do not want him to have a print."

"But I do," said the picture maker, "and I want his money."

While the picture was being made, the local editor had obtained full particulars of the hunt, returned to his office and was busy writing up the story. A committee was despatched to his office to ask him to suppress the report. He said:

"Nay, nay Pauline, this is good stuff and I must print it."

"But we don't want it printed."

"But I do," said the editor. "I do not approve of such slaughter of game as you have been guilty of, and intend to give you a column. Then I will send a marked copy to a certain New York editor who will give you fellows rats."

By that time the game hogs were hot all over and were down in their buckskin wallets for money to buy the negative, and to keep the story out of the local paper. It took all the dust they had to suppress the photographer and the editor.

Similar scenes are being enacted every day, somewhere in the country. RECREATION is threatened about once a month with a libel suit or an injunction suit, as a result of its branding process; but its picture gallery grows apace and some days 2 paces.

AND SHANLEY PAYS THE FREIGHT.

In February, 1901, I learned that grouse, quails and woodcock were being served at Shanley's restaurant, 1212 Broadway, New York. This was 45 days after the close of the legal season for selling these birds; so I went to Shanley's to dinner one night, took 2 friends with me, ordered quails on toast and got them. The next day I took 3 friends to lunch there, and we each had a woodcock. Then the next night we dined on ruffed grouse. The next day we took broiled quails again, for a change. In each case I carefully wrapped up the bones of one of the birds and brought them away with me. We kept on eating game until we thought we had enough penalties chalked up against Mr. Shanley to teach him a lesson. Then I had my attorney draw up a complaint against Mr. Shanley and he was summoned to court to answer for his illegal deeds. As usual the case hung fire a long time and was bandied about by the opposing counsel. A few months ago Mr. Shanley got tired of playing football in court, offered to confess judgment and pay a penalty of $250. Under existing circumstances the League officers decided it would be well to accept this proposition; so Mr. Shanley paid his good money into court and the case was disposed of.

Under the game and fish laws of this State the complainant in such case gets half of the fine imposed, after paying attorney's fees. Accordingly, I have received from the State Treasurer a check for $100 as my moiety in this case, and have bought with it 5,000 2-cent envelopes. These are to be used in carrying on the League work as long as they last, which will probably be 3 or 4 months. Mr. Shanley may, therefore, feel assured that his money is being put to good use. The envelopes which I have bought with it are now carrying League literature all over the United States and Canada. They are carrying copies of this statement to thousands of hotel and restaurant men in various towns and cities, to warn them as to what may happen to them if they serve game in close season.

Some of these envelopes are carrying notices to game dealers in various States of the Union, to remind them that in selling game to hotel and restaurant men they are perhaps contributing to the future grief of such customers.

I trust Mr. Shanley may enjoy these reflections, and that in future he will endeavor to feed his patrons on food that may be sold and served without violating any law.

If the June number of RECREATION is better than its predecessors, it is owing to the fact that the Editor was away while it was being made up and put to press. Of course I roasted some pork and fixed up a few other things for that issue before leaving home, but the detail of the work was left to an able corps of assistants, who, I trust, have done their work to the entire satisfaction of all my readers and advertisers.

Where have I been? In the Selkirk mountains, British Columbia. I spent a month climbing mountains, in the hope of regaining my health, which has been seriously impaired by overwork. I am not cured, but am a lot better off than I was. I shall be compelled to absent myself from business during a portion of the summer, but shall keep in close touch with the office, and the interests of the magazine will be carefully looked after. The League work will also be in good hands during my absence, and I trust I may get in such shape by next fall that I can take up both lines of work with renewed vigor.

I have received at least 100 clippings from various newspapers telling of a large killing of ducks, said to have been made near Norfolk, Va., in March last, by Grover Cleveland, Paul Van Dyke and others. I wrote Mr. Cleveland, asking if the reports were correct, and he replied, "I am glad to say there is no approach to truth in the story of duck butchery referred to."

I also wrote Mr. Van Dyke, and he answered to the same effect.

It is well known that nearly all newspaper reporters, when talking of prominent men who go hunting or fishing, grossly exaggregate the quantity of fish caught or game killed. In view of Mr. Cleveland's frank statement, it is fair to assume that the wild-eyed reporters of Norfolk who interviewed him and his friends on their return from the hunting trip are no exception to the rule.

You would be surprised, or at least I was, to find in the little towns up the line and out by the St. Lawrence river, RECREATION lying on the counter of some news stand. It certainly has a wide circulation.

R. C. W. Lett, Ottawa, Ont.

Poor Beer vs. Pure Beer

Both cost you alike, yet one costs the maker twice as much as the other. One is good and good for you; the other is harmful. Let us tell your where the difference lies.

POOR BEER

is easy to brew.

The materials are cheap. The brewing may be done under any sort of surroundings.

Cleanliness is not important, for the users never see it brewed.

Any water will do. No air is too impure for the cooling.

No filtering, no sterilizing; almost no ageing, for ageing ties up money.

What is the use of expense and care when there is no reputation to defend?—

When few people who drink it know even the name of the maker.

PURE BEER

calls for the best materials —the best money can buy.

The brewery must be as clean as your kitchen; the utensils as clean.

The cooling must be done in filtered air, in a plate glass room.

The product must be aged for months, until thoroughly fermented, else biliousness results.

The beer must be filtered, then sterilized in the bottle.

You're always welcome to that brewery, the owners are proud of it.

And the size of it proves the eventual success of worth.

To maintain its standard, we double the necessary cost of our brewing. Don't you prefer a pure beer, a good beer, a healthful beer, when it costs no more than common?

Ask for the brewery bottling.

Schlitz

The Beer That Made Milwaukee Famous

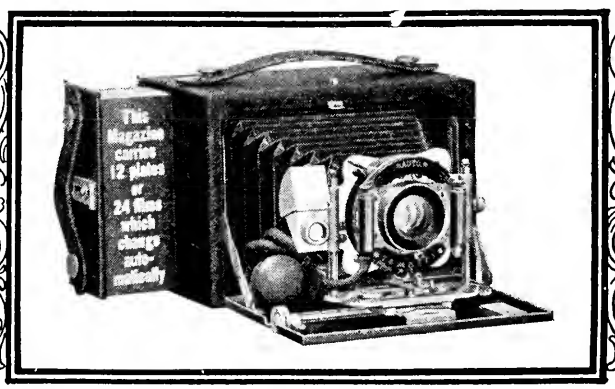
The Magic Magazine

The magazine of the ***Snappa*** Camera is the wonder of the photographic world. It carries 12 plates or 24 films which it changes like magic the instant the exposure is made. Whether you take a picture every second or only one a week, you always have a fresh plate or film ready for instant use. Every exposure is entirely separate and distinct and can be correctly developed. The

Snappa Camera

is fitted with the famous Plantograph Lens, the new Auto Shutter and every adjustment an expert requires. If you want to understand the latest wonders of photography you must know all about this wonderful camera. Ask to see it at the dealers or send for an illustrated book—FREE.

Rochester Optical and Camera Co., 119 South St., Rochester, N. Y.



AMATEUR PHOTOGRAPHY.

"For sport the lens is better than the gun."

I wish to make this department of the utmost use to amateurs. I shall, therefore, be glad to answer any questions and to print any items sent me by practical amateurs relating to their experience in photography.

7th ANNUAL COMPETITION.

RECREATION has conducted 6 amateur photographic competitions, all of which have been eminently successful. The 7th opened April 1st, 1902, and will close November 30th, 1902.

Following is a list of prizes to be awarded:

First prize: A Long Focus Korona Camera 5 x 7, made by the Gundlach Optical Co., Rochester, N. Y., fitted with a Turner-Reich Anastigmat Lens, and listed at $85.

Second prize: A No. 3 Folding Pocket Kodak, made by the Eastman Kodak Co., Rochester, N. Y., fitted with a Bausch & Lomb Lens Plastigmat Unicum Shutter, and listed at $61.50.

Third prize: An Al-Vista-Panoramic Camera, made by the Multiscope and Film Co., Burlington, Wis., and listed at $40.

Fourth prize: A Wizard C Camera, 4 x 5, made by the Manhattan Optical Co., Cresskill, N. J., with B. & L. Iris Diaphragm and Leather Carrying Case; listed at $33.

Fifth prize: A Waterproof Wall Tent, 12 x 16, made by D. T. Abercrombie & Co., New York, and Listed at $32.

Sixth prize: A Gold Hunting Case Watch; listed at $50.

Seventh prize: A Tourist Hawkeye Camera, 4 x 5, and made by the Blair Camera Co., Rochester, N. Y., and listed at $15.

Eighth prize: A Bristol Steel Fishing Rod, made by the Horton Mfg. Co., Bristol, Conn., and listed at $6.

The 10 next best pictures will each be awarded one dozen 8 x 10 Carbutt Plates, made by the Carbutt Dry Plate Co., Wayne Junction, Philadelphia, Pa.

The 10 next best pictures will each be awarded one dozen 5 x 7 Carbutt Plates.

The 10 next best pictures will each be awarded one dozen 4 x 5 Carbutt Plates.

A special prize: A Goerz Binocular Field Glass, listed at $74.25, will be given for the best picture of a live wild animal.

Subjects are limited to wild animals, birds, fishes, camp scenes, and to figures or groups of persons, or animals, representing in a truthful manner shooting, fishing, amateur photography, bicycling, sailing or other form of outdoor or indoor sport or recreation. Awards to be made by 3 judges, none of whom shall be competitors.

Conditions: Contestants must submit 2 mounted prints, either silver, bromide, platinum or carbon, of each subject, which, as well as the negative, shall become the property of RECREATION. Negatives not to be sent unless called for.

In submitting pictures, please write simply your full name and address on the back of each, and number such prints as you may send, 1, 2, 3, etc. Then in a letter addressed Photographic Editor, RECREATION, say, for instance:

No. 1 is entitled —— ——.
Made with a —— —— camera.
—— —— lens.
On a —— —— plate.
Printed on —— —— paper.
Length of exposure. —— ——.

Then add any further information you may deem of interest to the judges, or to other amateur photographers. Same as to Nos. 2, 3, etc.

This is necessary in order to save postage. In all cases where more than the name and address of the sender and serial number of picture are written on the back of prints I am required to pay letter postage here. I have paid as high as $2.50 on a single package of a dozen pictures, in addition to that prepaid by the sender, on account of too much writing on the prints.

Any number of subjects may be submitted.

Pictures that may have been published elsewhere, or that may have been entered in any other competition, not available. No entry fee charged.

Don't let people who pose for you look at the camera. Occupy them in some other way. Many otherwise fine pictures have failed to win in the former competitions because the makers did not heed this warning.

THE WORKROOM.

For spotting mat prints, such as Velox, bromide, or platinum, the general practice of using a spotting brush and India ink, is not the only or most satisfactory method. A brush is an unwieldy thing for one so little accustomed to it as photographers in general. I have been using a certain pencil several years, and I find it superior in many ways. The fact that this pencil is unknown to photographers and has been introduced only recently, probably accounts for its not being used. This is the "Negro" pencil, made by Hardtmuth, of Vienna, and it can be obtained from dealers in artists' materials. They claim it is neither graphite nor crayon, but keep its composition a secret. It is made in 5 grades. For spotting, No. 5, the hard, for light and delicate work, and No. 1 or 2, soft, for blacks will be found sufficient. Work done with these pencils does not shine as with the graphite or lead pencil, and it does not rub off like crayon work; besides it is much cleaner. Spotting is done much more quickly and neatly in this manner, than with a brush. An error can easily be erased with a rubber.

While developing Velox, bromide, or other papers, it often happens that some part of a print comes out too black, or overexposed, while the remainder of the print is properly exposed. This can be avoided, by plunging the print into clean water, or

blotting it on clean blotting paper, and then with a brush, dipped into a 10 per cent solution of bromide of potash, painting the overprinted parts. Return to the developer and proceed as usual. A slow working developer is preferred. Wherever the bromide of potash is applied it checks the development; therefore care must be taken not to apply so much as to cause it to run where it is not desired.

A serviceable addition to the dark room sink is made of a board, 8 or 10 inches wide and a little shorter than the inside width of the sink. About one inch from each end nail 2 cross-strips or blocks, so that one end of the board is ½ to 1 inch higher than the other. This forms a sort of bench, 3 or 4 inches high, which sits in the sink with the higher end under the faucet. After this is complete, cover the upper surface with carpet, or some similar material, fold it over the edge and tack underneath. This may form a permanent fixture in the sink, or it can be removed at will. It should never be quite so high as the sides of the sink, and should be placed so the water will strike it at the higher end.

When a negative is taken from the hypo drop it on the board, and by the time you have attended to a few other things it is sufficiently washed; or if you are only developing 4 or 5 plates you will need no further washing arrangement. The carpet covering prevents the plates from slipping, and it holds a sheet of glass so firmly that while cleaning old negatives or lantern slide cover glass, you can give them a thorough scrubbing under running water, without fear of slipping.

An excellent retouching medium for negatives can be made by dissolving a small quantity of light colored shoemaker's wax in gasoline, decanting the clear liquid and adding spirits of turpentine.

Another good medium is made by adding a small quantity of damar varnish to spirits of turpentine. Apply a small quantity of either of these to the part of the negative to be retouched and wipe off the surplus with a piece of muslin or your hand. I prefer the latter, as it does not leave lint on the negative. These formulae will permit much heavy work on the negative, especially if a fairly soft pencil is used.—Western Camera Notes.

PRINTING IN CLOUDS

This is a good time of the year to procure a few cloud negatives, and if 1 or 2 are taken now and again when out picture hunting, a valuable stock will soon accumulate. If taken on films, each will give 2 views, from the fact of their being reversible.

The picture being printed, and the cloud negative having been chosen for the subject, the masking of the picture while printing in the cloud is the main point to be overcome. The joining of the horizon lines is often badly done, and if by chance the picture line is slightly intricate, it is generally here that a weak point exists.

Provide yourself with a dozen or more sheets of thin white tracing paper, cut to the size of the plate you are working. When you have finished printing your landscape take it out of your frame, place it on a small board, place a piece of tracing paper over it, and retire to the other side of the room. You will then be able to draw with a fine pen over the most important objects in the picture a line from one side to the other, following, of course, the details. Give ample time to this part of the work, for without it you can not succeed. When you have finished this outline, all that is necessary is to fill in the view with India ink, artist's black or vermillion, and let it thoroughly dry, which will take but a few moments. Insert the cloud negative in the printing frame, place the print, with the mask in register, in position in the frame, and print in the cloud to the proper depth.

If you possess a retouching desk, these masks may be made at night from the negative. With a few pieces of stamp paper attach the edges from front of paper to glass side of the negative to prevent its slipping; afterward it can be detached and then blackened out. The hard lines are softened to a nicety by printing through the tracing paper, and perhaps a little longer time is required to print.

With a negative that has clouds, it often happens that in printing the clouds properly the view is overdone. The tracing paper mask is useful in such cases. In printing on paper that gives no visible image, such as carbon, platinotype, bromide, etc., the paper negative and mask should be placed well into one corner of the frame, and a note made of it on the back of the print, so as to provide against any chance of mistakes. Nothing is more annoying than to find, after all your pains, that you have manipulated your sky upside down on the view when you come to develop the picture.

A good white tracing paper gives no grain that will harm a print, and care should be taken that it is not crumpled. It deteriorates with age, going yellow, which makes a long printing job; but the paper is cheap enough for one to make a fresh mask when required.—Erudio, in Photographic News.

MY MOST INSTRUCTIVE EXPER'ENCE.

My most instructive experience was the result of a mistake. When I first started making lantern slides I found difficulty in judging the exposure to give. I exposed many slides with only a few good results.

One day in making slides by reduction and trying to get the correct time on a negative from which I had already made a slide, I forgot to stop down the lens before making the exposure. The slide, therefore, had 3 times the exposure I intended to give, so that I concluded it was another failure. Instead of throwing the slide away, however, I determined to see what I could make of it, and therefore mixed the following developer:

Water	4 ounces.
Saturated solution sodium sulphite	4 drams.
Acetone	2 drams.
Dry pyro	10 grains.

To this I added 10 drops of a 10 per cent solution of bromide potassium. To my surprise the slide came up slowly and evenly and developed to good density without the slightest trace of fog When thrown on the screen it proved fairly satisfactory. Taking advantage of this mistake I thereafter proceeded along the same lines, greatly over exposing the slides and so manipulating them in the developer as to give the best results. Since that lucky mistake I have lost few slides, one exposure generally sufficing where before I would perhaps make 3 to 6 exposures to get a good one. I do not think the above plan could be followed with all developers, as the tendency would be toward fogging; but with pyro acetone I have never had the slightest trace of fog, and in the most contrasty negatives the shadows will not clog before the high lights and half tones gain their proper gradation. The exposure I give at a North window in good daylight is 3 minutes with stop 16.

Another suggestion in regard to the fixing of slides will perhaps prove beneficial. It will frequently be noticed that although there is no pinhole in the slide on removing it from the developer, 2 or 3 will appear when the negative is in the fixing bath. This generally results where the slide is fixed in a flat tray. Instead of fixing by laying flat in a tray, get a small box, stand the slides up on edge in the hypo and pinholes will be an infrequent occurrence.—John Hadden, in Paine's Photographic Magazine.

ISOCHROMATIC PLATES.

Isochromatic plates are especially adapted for obtaining color values.

If the amateur will give a Crown plate and an isochromatic of the same speed, the same time and same stop, and develop with the same developer, he will see a vast difference, and, I believe, will use only the isochromatic plate for any subject in the future. The cost is only 5 cents a dozen more, and the result is more than 5 times better.

A slow isochromatic plate is not the best for portraits out of doors, as 14 seconds is too long, especially if any wind be blowing. The instantaneous plate is excellent for outdoor scenes, especially if it be stopped down to 16 F. or 32 F. For all around work, the medium brand is a plate hard to duplicate. The best effects of sea views or snow scenes can be obtained on Aristo-platino paper, from these plates. The surf and foam of the waves show as clearly as it is possible to get them. These plates are not more difficult to handle than any others. Keep all white light from the plate, and do not keep it too near the ruby light. A red lantern, with no white light coming out of any small holes or openings, is as good a lamp as can be had. Pyro is the best developer. It brings out things more clearly and gives a far better negative to print from. One need not keep his hands in the pyro all the time. An old knife is handy in the dark room for plates sticking in the holders and to lift the plate out of the pyro. Here is a formula for small quantities of developer to be made up and used as one wishes to develop; say only 2 or 4 plates. It can be made at a small cost, and always full strength, giving good results:

Stir into 8 ounces of boiled water 1 drachm (60 grains) carbonate of soda, 2 drachms (120 grains) sulphur. When dissolved, add 3 grains of dry pyro for each ounce of water; less pyro, less intensity. For users of 4 x 5 plates, 4 ounces are plenty.

In making hypo I have found it well to use plain hypo and water, 4 ounces of water to one ounce of hypo, and lay aside all other chemicals, especially in winter.

H. P. Wightman, Evanston, Ill.

RESULTS OF SOME EXPERIMENTS.

The dry plate, or film, is exceedingly sensitive to light, yet people persist in overestimating its sensitiveness when taking a picture and underestimating it when in the developing room. Do not be afraid of slow instantaneous instead of rapid instantaneous timing. Ruby light will fog a plate if too near until development is well begun. Last summer I bought a cow, thinking I would photograph it with the children or dogs or something playing with it; also, would get a genuine milking scene. Whenever I tried I got everything all right but the cow. She came out in silhouette, and I wasted much ammunition on that wretched quadruped before I found that it is almost impossible to snap a red cow at 10 feet. Finally, by using isochromatic plates and a slow shutter, I could take my red cow every time.

When I began to develop I entertained the idea that a strong developer would be

best, but luckily I met a man who put me on the right track, and I got well acquainted with tank development and pyro. I have made up the pyro developer that is prescribed for the plate I use and then I go about it this way: I use an ounce of each of the 2 bottles in 4 ounces of water to develop a dozen 4 x 5 plates. I fill my rubber tank, which is an ordinary fixing box with cover, nearly full of water, including the 2 ounces of developer, stir it, drop in my plates, cover, and wait 3 hours. It is so easy I am ashamed to admit I use it, but I have tried all the other ways for experiment and I do not get the results I do with the tank. I make all my pretentious work in carbon. It is neither difficult nor expensive. I often use films and, of course, prefer them for carbon work, as by printing through the backs I can make carbons by single transfer that are not reversed. With plates I have to use the double transfer process. You do not know what a good print is till you have made your red, sepia, green, blue, brown, black, grey, etc., carbons. The process is king of all.—Edmond Pond, in the Photo-American.

MR. KIRSCHNER EXPLAINS.

I see in February RECREATION you awarded a prize to Mrs. P. B. Kirschner for a photo of a buck which was wounded and which, from all appearances, was taken in the close season, as it has velvet on its horns, and the foliage indicates that it was not in open season. The buck was undoubtedly killed, as it was known to weigh nearly 200 pounds. Of course I do not think Mrs. Kirschner shot the deer, save with her camera; but the party who did shoot the deer ought to be prosecuted to the full extent of the law. If that deer was killed and weighed out of season, why do you not find out the offending party and see that he pays his fine?

James Clemens, Nemo, S. Dak.

On receipt of the foregoing letter I forwarded it to Mrs. Kirschner, and her husband replied as follows:

As I killed the deer in question, I think it my duty to reply to the attached correspondence, thereby relieving Mrs. Kirschner from all responsibility. If Mr. Clemens has never seen a deer in the velvet in September, he has yet something to learn. His argument that the foliage shown in the photo indicates that the deer was taken in the close season, will not hold. The foliage shown in the photo is chiefly, if not wholly, witchhopple, which does not die off in June like sage brush in Dakota, which Mr. Clemens probably had in mind.

I wounded the deer near Big Otter lake, New York, September 3, 1901. He got away from me, and as it was getting too dark to follow him, I left him over night, knowing he was badly hurt. The next morning, together with Mrs. Kirschner and my brother, a guide, we took up the deer's trail and soon found him lying down as indicated in photo, when another shot finished him.

Any further information you may wish regarding this matter will be cheerfully given.

P. B. Kirschner, Lowell, Mass.

UNCLE JOSH AND THE CAMERA GIRL.

Yeh see, she wuz a summer girl, an' when she come down tu our place tu stay a week, she brot a thing-ma-gum she called a Kodax with her.

It wuz a kind uv a box with a eyehole in one end, an' a button tu press on the side.

When you pressed the button it tuk a pictur. I kno' it did, fer I saw one it tuk uv M'ria, milkin' th' jersey cow, an' it wuz jist as nateral as life.

That gal wuz a stunner! She wore purty cloze, an' she had th' new Florodoro hold-up way uv liftin' her dress, to perfection.

Ev'ry man in town wuld turn an' look after her when she past by.

Why, I'd stop buggin' th' pertaters any day an' set up at th' corner fer an hour to see her go crost the street.

Well, I wuz goin' to tell yeh 'bout that Kodax.

She went round snappin' it at most everything she see.

She told me she liked to git Gene Ray picturs; she sed Gene Ray picturs told a story. They never told me any, tho'.

One day little Bobby fell in th' soap kittle an' ruined his new pance. She tuk a snap shot uv him an' called it "A Sunset in Greece."

One day when M'ria wuz trimmin' my hare an' whiskers with the sheep shears, th' gal tuk a pictur uv us an' called it "Moss from an Old Mans"; an' one time when she got her close fast on th' stake-and-rider fense, an' I had tu go an' hep her down, she remarked, "Saved from over-exposure."

Some time I'll tell yer about how she tuk th' pictur uv the yearlin' calf.—Western Camera Notes.

SHOULD BE NEUTRAL.

Must sulphite of soda be exactly neutral? I have some which is strongly alkaline. I bring it as near neutral as I can with sulphuric acid and litmus paper. Is that method correct? Does it not form a sulphate which is a powerful reducer or restrainer? How should pyro be used, kept, etc.? How long should a plate be in pyro

developer? Is it economical to use combined developer and fixer, and is it worth anything in your opinion? How can plates be spotted? I mean how is it done? Can "E. W. N." be bought in smaller quantities? Should an acid fixer be used with an alkaline developer? How can portraits best be made with a 4 x 5 Wizard B. and a Nehring portrait lens? My room in which I make them has windows on the West.

Edgar R. Thome, West Hanover, Pa.

ANSWER.

Sulphite of soda is neutral if good. Alkaline sulphite disturbs the balance of your developer, naturally.

Some only keep a stock solution of sulphite at 60 grains to the ounce, or even 40, and add dry pyro and dry soda as wanted when developing.

Boflay is good. It is, I believe, hydrochinone and hypo with carbonate of potash.

Send to E. W. Newcomb, Bible House, New York City, for circular in answer to this, no charge for directions. The 50 cent box is the least quantity sold.

Acid fixer is often used after alkaline developer, and you will find it recommended for many plates by the makers.

Your arrangement is good. If you use a reflecting screen to one side of and a little in front of the sitter you will have good results.—EDITOR.

NOTHING BETTER THAN PYRO.

Does the length of time a P. O. P. print remains in the toning bath affect the permanency; whether removed quickly for red or brown tones, or left the usual length of time, as for purple or black?

You place pyro ahead of all other developers. I have never used it, and hesitate now to make a change, since my work, though not altogether satisfactory to myself, is fair. Do you think the results would justify the extra trouble of using pyro, with its staining propensities, etc.?

Is there any method of preventing the tendency to fog, during development in hot weather, other than using ice, where this is hard to obtain?

Amateur, Blackstone, Va.

ANSWER.

The print, in combined bath, should remain only long enough to insure fixation, regardless of the tone. In the double tones you may tone red, purple or nearly black in gold and then fix in hypo without affecting the permanency of the print.

Pyro is absolutely the best developer there is, and will give amateurs far better results than so-called stainless developers, which do stain after all. By using plate lifters for plates and clips for film you need never soil your fingers in pyro. The sooner you use it the better it will be for you.

Plates do not fog any more during hot weather than cold, nor will ice stop fog. If you mean frill, use formaldehyde in your hypo, one dram to a pint. If you mean fog, stop up the cracks in your room, replace your slides squarely in the holder, do not use a leaky lamp, keep holders in shade when out, and you will not have so much fog.—EDITOR.

TO GIVE CRIMSON TONE.

Crimson prints are a new thing, that is, as far as anything can be new in this age of second-hand discoveries. The toning bath is made up when wanted and used at once, and is as follows:

Sulphocyanide of ammonia	75 grains.
Iodide of potash	20 "
Water	3 ounces.
Chloride of gold, dissolved in 2 drams water	4 grains.

Wash the prints well before toning, and see to it that they are but proof deep. Fix full 15 minutes, as silver iodide dissolves less freely in hypo than silver chloride. Toning to a bright crimson with the above bath takes 30 to 45 minutes. There is your formula; now if you want to paint the town's portraits red, go ahead.

Blue prints are in favor again. I am glad of it. The humble, simply made, water-developed, permanent old chap has not deserved to be let alone as he has been for some years. Try a 9x14 panel in blue, with a border of silver paint ¼ inch wide around the edge. Call it a Venetian or a Cyanotype, or any other name, state that it is warranted absolutely fadeless and permanent, and charge an extra price for it. Might be just the thing to revive interest in some of your negatives.—E. W. Newcomb, in the Professional and Amateur Photographer.

HOW TO WORK URANIUM INTENSIFIER.

I inclose clipping giving formula for intensifier. Will you please explain more fully, through RECREATION, how to work it? T. Beach, Columbia, Ala.

The clipping enclosed by Mr. Beach is as follows:

Nitrate of uranium intensifier will give to the thinnest negatives printing qualities which the mercurial intensifier fails to give on account of the red color which it imparts to the negative. The formula is the following: Solution I., dilute acetic acid with 4 times its bulk of water. To 100 parts of it add one part of nitrate of uranium. Solution II. is a one per cent. solution of red prussiate of potassium. For

use, add Solution II. to Solution I. in equal quantities.

ANSWER.

The formula says to add 8 ounces of water to 2 ounces of glacial acetic acid. That gives 10 ounces of dilute acid. To that, add 44 grains of nitrate of uranium. Then mix 50 grains of red prussiate of potash in 10 ounces of water. Bottle each separately and label A and B. Use one ounce or more of each to intensify negatives and throw away this mixed intensifier after use. Separately they keep, but not mixed A and B.—EDITOR.

TRANSMISSION OF LIGHT

Following is a good way to experiment with the effects of the selective transmission of light produced in the negative, or in other words the results of absorbing partly or wholly one or more of the 3 colors, red, green and violet, which go to make up the light that reaches the plate. Place in a clear hypo or hypo-chrome alum solution a plate which has been spoiled in exposing or any plate in which there is no free silver. A new plate is best. Leave until every trace of the silver and bromium salts has disappeared. When the opaqueness has vanished the operation is about ¾ completed. After thoroughly washing out the hypo dry carefully. When the gelatine is hard lay the plate, film down, on a clean filter or blotter and cut it with a diamond into squares of a size sufficient to cover the lens. These small plates will readily assume the color of any solution into which they are placed. Do not use a solution that will leave a crystalline deposit on the film in drying. Procure some of the aniline colors and mix them to suit yourself. Varied results will be obtained by combining one or more of the screens or by only partially covering the lens during exposure.

William A. Fuller, Ithaca, N. Y.

SNAP SHOTS.

Is E. W. Newcomb's spotting medium, mentioned in March RECREATION, used for retouching negatives? Where can I obtain it? What will keep films from rolling?

My husband and I enjoy RECREATION greatly, and find much useful and interesting reading matter in it.

Mrs. R. E. Sumner, Ludlow, Mass.

ANSWER.

No, Newcomb's Ideal spotting medium is not to retouch negatives in the sense of smoothing out faces. It is to fill in holes, scratches, etc., in both negative and print. You will find the soaking solution given in Eastman's instructions the proper thing to keep films from curling: Water, 1 quart; glycerine, 1 ounce; soak 5 minutes after washing and pin up film, right out of soaking solution, by its 4 corners.—EDITOR.

Those who are accustomed to work the carbon process, know that when the same warm water has been used for developing several carbon prints, the dissolved gelatine has an unpleasant tendency to work up into a froth by the inevitable splashing of the water. To skim off this froth is only to find it replaced a few moments afterward. The following suggestion meets the case: Take a piece of common yellow kitchen soap, and pass the moist hands over it 2 or 3 times, just enough to get a slight lather. This, when mixed with the water, dispels all gelatine froth as though by magic and no harmful effects follow. A slight trace of soapy lather will counteract a large quantity of gelatine froth.—The News Monger.

What will prevent ferrotype plates, that are used for squeegeeing, from adhering?

D. B., Plymouth, Pa.

ANSWER.

Make the following waxing solution and when your ferro plates are cleaned and polished drop a few drops on each and rub around vigorously with a woolen cloth until an almost unperceptible coating is secured. Then squeegee your prints on and they will never stick. Repeat at each use of plates.

Dissolve 2 drams yellow beeswax shavings in 1 ounce each of ether, alcohol (95 per cent.) and benzole. Shake till dissolved and keep tightly corked.—EDITOR.

Will you kindly give me a little information in regard to coloring photos? I mean, to take the print after it is made and color the dress, hair, eyes, etc. What kind of colors are used, and what is used to soften the print, so it will take the color? How are colors applied, etc.?

W. W. Noble, Yazoo City, Miss.

ANSWER.

Use Marshall's electric colors and his medium to apply before coloring, so the color will spread. The colors and full instructions are to be had of A. G. Marshall, 625 Vanderbilt avenue, Brooklyn, N. Y.—EDITOR.

Will you please give me formula for salting solution in making plain salted paper? F. C. Wilbour, Austin, Minn.

ANSWER.

Ammonium chloride.....60 grains
Gelatine .....20 grains
Water .....20 ounces

Dissolve by gentle heat and soak paper in the solution 2 minutes.—EDITOR.

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CHARLES I. BERG,
HENRY TROTH.

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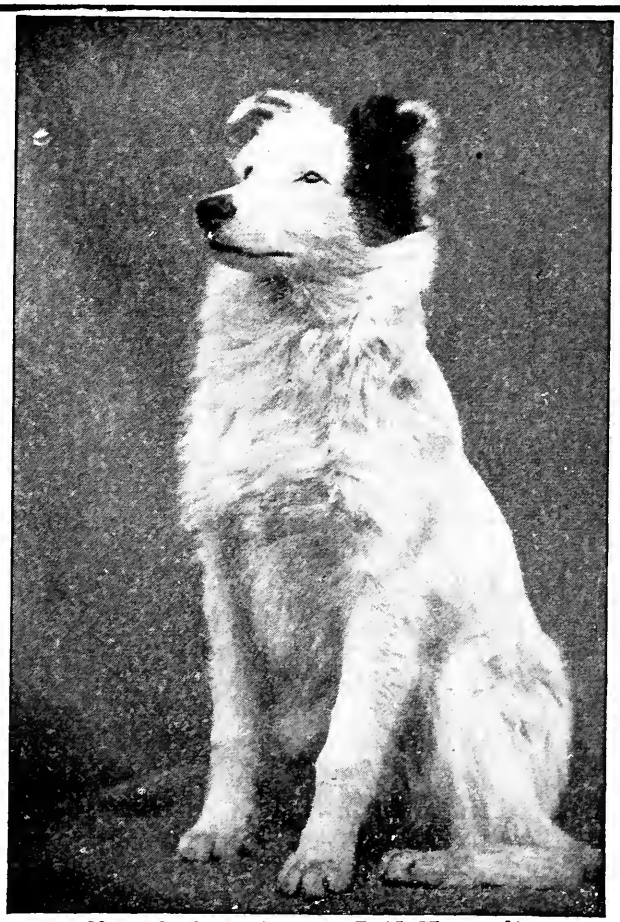

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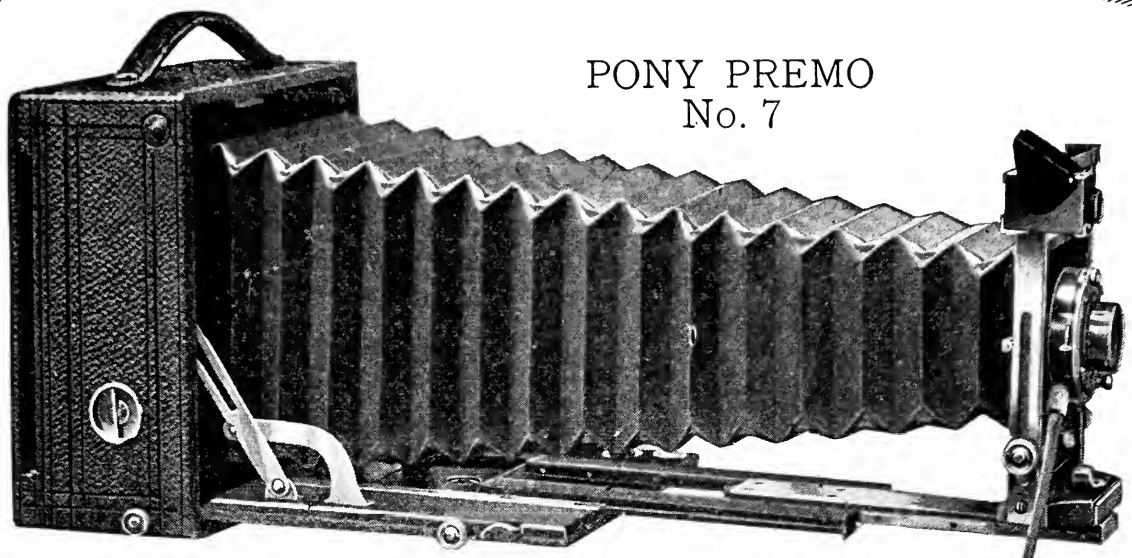
Sample copies of RECREATION for use in soliciting furnished on application.

A NOT UNUSUAL HEART SHOT.

B. and I were hunting deer some years ago near French river. While returning to camp one evening, I shot a rabbit, and was carrying it, walking a little behind my friend. Suddenly B.'s rifle went to his shoulder, and I saw a large buck standing about 60 yards in front of us. As my companion was a good shot, I remained motionless, feeling sure it was his meat. At the crack of the rifle the deer started, his first jump taking him out of sight. "I got him!" cried B., "I shot him through the heart." "Are you sure?" I asked. "Yes," he said, "I had a good bead on him." We went to where the buck had been standing and found his trail, but no blood. After beating about awhile B. cried, "Here is blood!" and so there was, though but little. We followed the blood stain, which grew plainer at every step. Presently we came to the spot where I shot the rabbit, and it dawned on us that we had been following our own back trail by the rabbit's blood. Returning to the place where we saw the deer, we found B.'s bullet embedded in a tree. B. seldom speaks of a heart shot since then; but when he does, the boys laugh.

F. W. Foreshew, Sheguiandat, Ont.

IF YOU WOULD LIVE NEXT TO NATURE, READ RECREATION.



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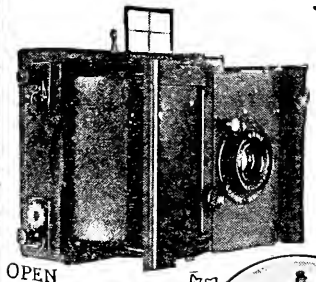

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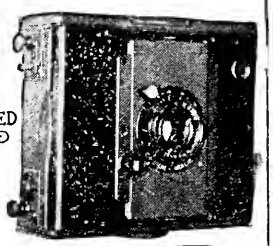

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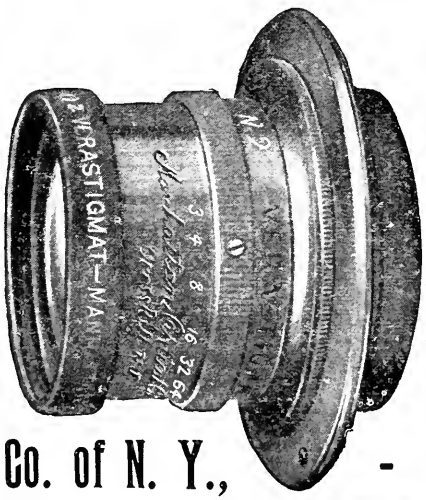

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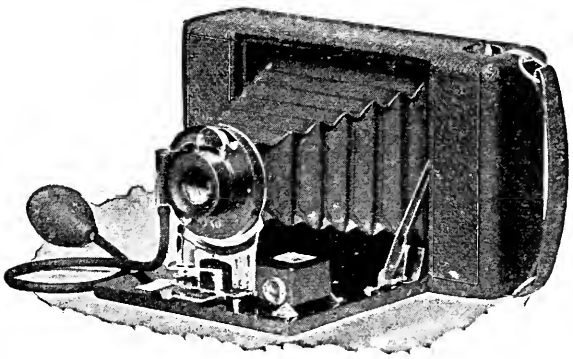

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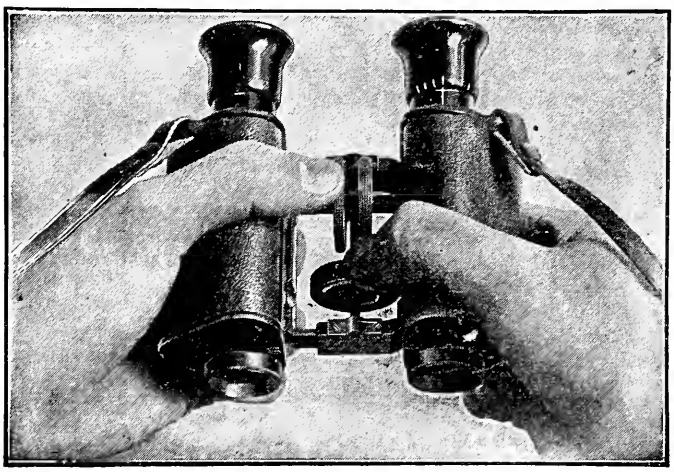

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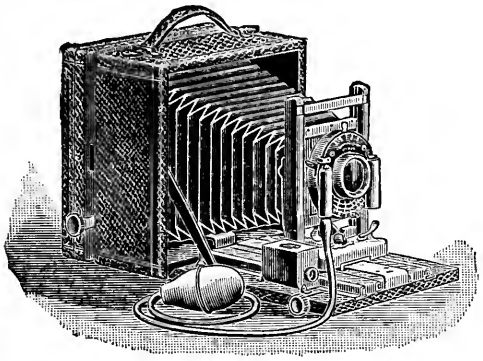
Series V Long Focus Korona



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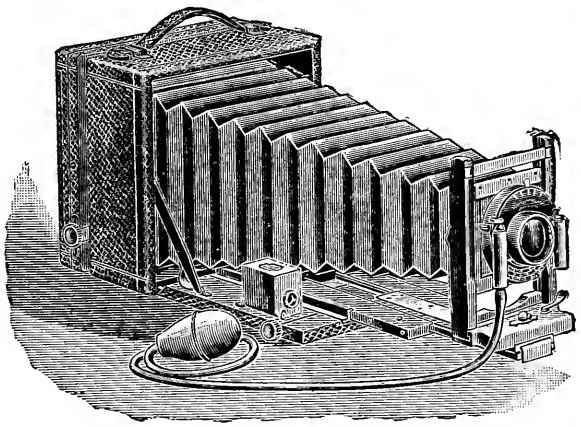
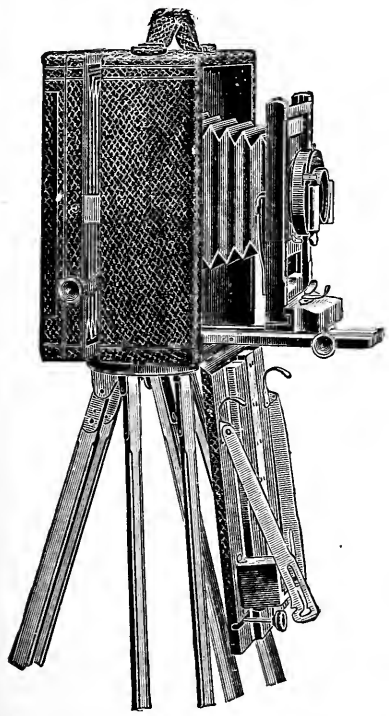
or other work needing bellows capacity, and also with wide-angle lenses for interiors and kindred subjects.

ONE CAMERA DOES IT ALL

Every adjustment is a marvel of simplicity and mechanical ingenuity, and many of them are found exclusively on the Korona.

Note our patent auxiliary bed for use with wide-angle lenses, and compare it with





the clumsy methods used to obtain this result on other cameras.

Our patent automatic swing back operates from the center according to correct principles.

KORONA LONG FOCUS

Has a Convertible Lens, Automatic Shutter, and numerous other special advantages.

Catalogue gives full information

Gundlach Optical Co.

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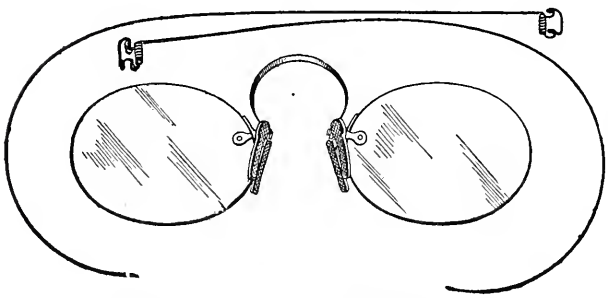

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Convenient Handy

Every wearer of eyeglasses wishes occasionally that his pince-nez were spectacles. Spectacles stay on, however violent one's exercise; however warm the weather. With this little device you carry practically both eyeglasses and spectacles in one ordinary case.

Automobile and horseback riding, hunting, fishing, ping pong, cycling, yachting, golf, tennis, and all other athletic exercises can be indulged in with perfect safety to your glasses.

Perhaps you keep one pair of spectacles for just such uses. Sometimes you forget them; sometimes they are broken. The Temple Attachment will fit any of your eyeglasses. Kept in your regular case, they always are on hand.

Price per pair in nickel - - **50 cents**
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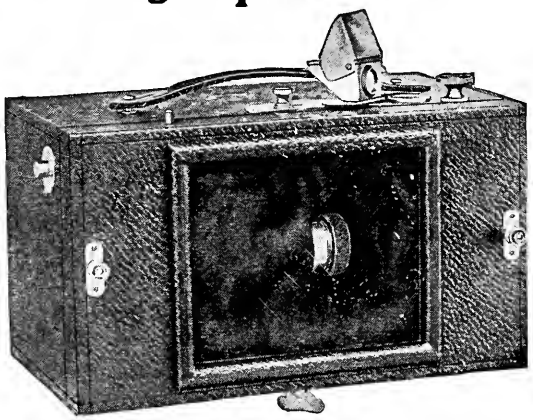

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A whole army
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Or any other vast stretch of scenery or moving objects? THE SWING LENS DOES IT.

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RECREATION, 23 West 24th Street NEW YORK CITY.

Has any reader of RECREATION ever shot a turkey with a soft nose 30-30 bullet? If not, don't try it. While hunting in Mexico last fall I found a bunch of 30 or 40 turkeys led by an immense gobbler. As they were coming in my direction, I crouched behind a rock and waited. When they were near I opened fire and soon had 4 birds down. When I went to gather my game I found the big gobbler blown to bits, there being nothing left but his breast. The other birds had been on higher ground and I had undershot, breaking a leg of each. As turkeys can not fly from the ground without a running start, I soon caught the cripples. At camp that night I explained to the boys that I had purposely shot my birds in the leg in order to save some of the meat.

Dr. I. T. Bush, El Paso, Tex.

Last night when I came home I found a package addressed to me. On opening it I found one of the finest hunting knives I ever saw, also a sheath for it. Kindly accept my hearty thanks for this premium. I shall try to send you more subscriptions soon, and get more of your fine premiums.

A. R. Shafer, Baltimore, Md.

RECREATION gives me much pleasure. I take much interest in camera work, also in hunting and fishing.

E. C. Chandler, Deep River, Conn.

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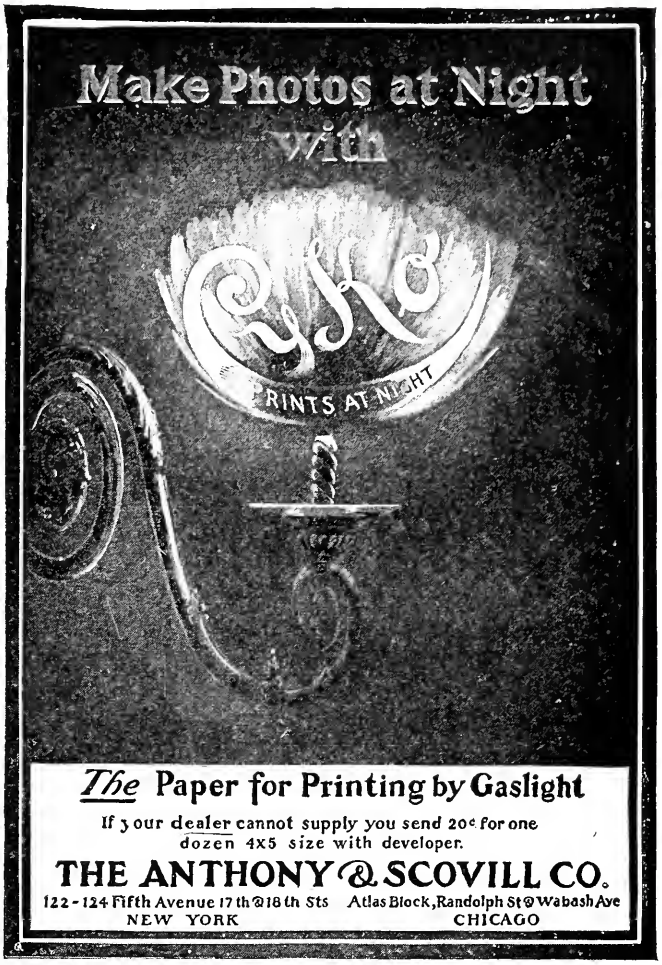
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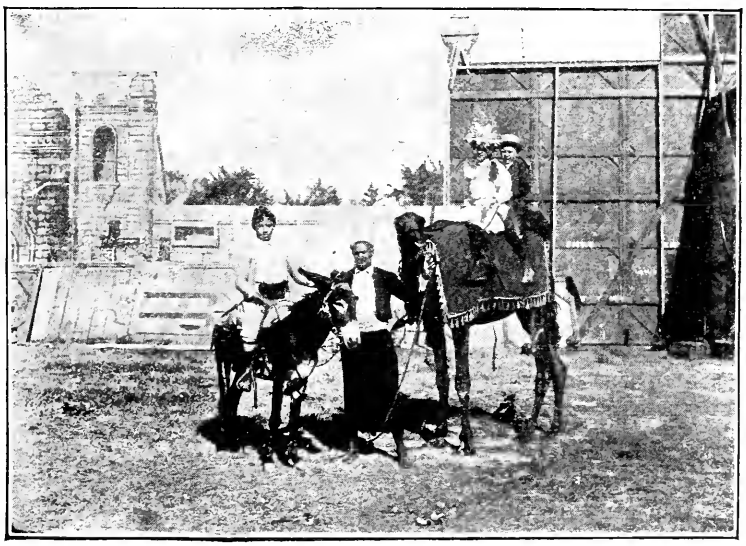

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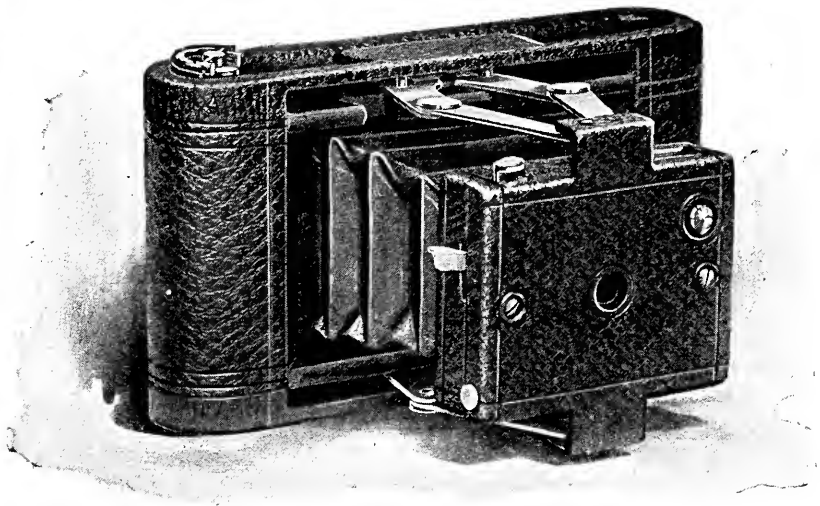

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No. 0 Folding Pocket Kodak, for pictures 1⅝ x 2½ inches,	$6.00
Transparent Film Cartridge, 12 exposures, 1⅝ x 2½,	.25
Do., 6 exposures,	.15

EASTMAN KODAK CO.

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Rochester, N. Y.

$4,000.00 in prizes for Kodak and Brownie Pictures.

Photographic Talks. No. 1.

Dry Plates

No matter how perfect the camera; how fine the lens; how expert the operator, the success of Photography depends on the plate.

Until to-day, the trend of plate making has been to produce a different plate for every sort of service—an orthochromatic plate for subjects of color; a non-halation plate for windowed interiors; a slow plate for copying, and a fast plate for snap shots.

While acknowledging the value of these special plates, we have, in 25 years' experience as the largest plate camera makers of the world, come to recognize the growing need for *one* dry plate of general utility; a plate that would render, as far as necessary, the *value* of colors; that would eliminate, as nearly as possible, the flare of halation; that would give the fullest depth, the most delicate definition, and yet be rapid enough for high speed work.

We believe we have solved this problem, and supplied the need for a universal plate. With this knowledge we now introduce

Sold in all sizes by all dealers. Made only by

ROCHESTER OPTICAL & CAMERA CO., Rochester, N. Y.

Largest Plate Camera makers in the world.

WESTWARD WITH THE IMPERIAL STAR.

The desire to live a little longer has led me to quit the unwholesome climate of the national capital, the house where wife and children dwell, and to wander across the continent to the mountains of Colorado, hoping to find in their quiet solitudes, under their cloudless heaven, a new lease of life.

A journey twice interrupted and delayed brought me via the C. & O. and the Big Four to Chicago, where I procured passage over the Rock Island to Denver. It was a kind friend, whose goodness has often, heretofore, been a gladness to me, who directed me to that road. I take this means to thank him for his kindnesses; not this alone, but many others. I shall carry to the grave a grateful sense of all his goodness.

How shall I tell the readers of RECREATION how well the officers and employés of the Rock Island know the meaning of courtesy? I have not always fared sumptuously at the hands of railroad men, though I have many times, in the course of much travel, found friends and genial companions among them; but I record my grateful thanks for a kindliness which began with John Sebastian, and ran through every officer I met and through all the train crews, even to the dusky porter on the chair car. This diluted son of Ham was as watchful of the passengers under his care as if he had been father of us all. The conductors between Chicago and Denver were changed several times, but from their uniform kindness and courtesy they might all have been one.

The train was of the latest, roomiest vestibule pattern, and the roadbed was perfect, the train bowling along as smoothly as if it ran on a track of glass. We left the station in Chicago at 10.00 p. m., made the long run of 1,083 miles, and pulled into the Union depot at Denver on the second morning at 7.45, not a second late.

In the great station in Chicago is a restaurant where one may find an excellent meal, splendidly served, at a reasonable price, and on the train is the dining car where one may get as good a meal as at Delmonico's at a price so fair as to surprise him. A lady, next seat in front of me, said she got an excellent breakfast for 35 cents.

Let me advise every brother of the trigger or the quill, to trust himself, in case he should follow the Western star, to the Rock Island. He will not regret it.

In the years gone with the past, I picked up a smattering of palmistry. I had scraped a casual acquaintance with a fellow traveler, and offered to read his future if permitted. My offer was gladly accepted and a brief sketch of the future was rapidly read off. A young lady sitting in the next seat forward, overhearing my forecast, timidly turned to me, thrust her little hand between the chairs, and asked me to read her fortune. I could not well decline and when I had completed that task I found another hand held down over my shoulder with the request, "Tell mine, too." I chanced to hit her past correctly, and gave her a flattering picture of her future. She was a mother in Israel, nearly or quite to the half century mark. When I finished her reading I found the whole end of the car packed with a throng, all anxious to try their fortune. Some were as gray as I; others were not yet out of their teens,

"Standing with reluctant feet
Where the brook and river meet."

Some were married, some wanted to be, and some perhaps wished they were not. For half an hour I held levee. Even the staid conductor held out his kindly palm, and the brakeman wanted to put his fortune to the test. Last of all came the porter, patient, polite, waiting till all the "white folks" had been read, holding to me his broad and generous hand. I am glad to say that he seemed happy over the little I could tell. One elderly lady, from the extreme front of the car rushed to me, held out a dainty hand, evidently unacquainted with toil, and asked for her horoscope. I chanced again to tell her of her past, and in prediction told her that she was the mother of a young man in whose future her heart was deeply concerned.

"Yes," said she, "what can you tell me of his future?"

"Madam," said I, "it ends in tragedy." I was sorry in an instant, for she caught her hand away, and went forward to her seat. I think she must have left the car at the next stop, for I soon missed her. The time passed plpeasantly *en route*, and so I am housed once more in the Rockies, where the skies are bluer and the breezes sweeter, to me at least, than anywhere else on earth.

W. H. Nelson, Boulder, Colo.

I wish RECREATION would help do away with pump guns for hunting deer. There are fellows who will go to the woods after deer with a gun full of bullets, and at the first move in the brush begin shooting and continue until the magazine is empty. If they had to hunt with a single shot rifle they would not shoot so recklessly, but would wait for a sure shot, and thus, perhaps, avoid killing a fellow hunter.

C. R. M., Trempaleau, Wis.

IN ANSWERING ADS PLEASE MENTION RECREATION.

Hot Weather Food.

Food for hot weather is an important question. People can feel from ten to twenty degrees cooler than their neighbors, by avoiding fats, cutting down the butter ration and indulging more freely in fruits and food easy of digestion.

An ideal meal is Grape-Nuts with cream, some fruit, a couple of slices of whole wheat bread, and a cup of Postum Food Coffee, hot, or if cold a little lemon juice squeezed in; Grape-Nuts can be made the principal food of the meal, because it is a concentrated food, one pound having as much nourishment—that the system will absorb—as ten pounds of beef, in addition to which it is already cooked and ready to serve. Delicious hot weather entrees and desserts are easily made.

Try this entree :—(*Salmon Croquettes with Grape-Nuts.*)—Drain a can of salmon and mash the fish fine; add two beaten eggs, four tablespoonfuls of melted butter, one cup of bread crumbs, one-half cup of finely ground Grape-Nuts, six tablespoonfuls of milk; salt, cayenne pepper and a pinch of mace. Beat to a paste. Lay small spoonfuls first into beaten egg, then in cracker dust, and shape into croquettes. Fry a delicate brown in deep fat, and serve with mayonnaise dressing.

A dessert for a warm day:—(*Fruited Grape-Nuts.*)—Chop together enough pineapple, bananas and peaches to make one cupful. In a dainty dish place a layer of this chopped fruit; then one of Grape-Nuts, and repeat. Over all turn a cupful of whipped cream, let stand on ice ten minutes and serve.

A booklet of excellent recipes is found in every package of Grape-Nuts and many easy warm weather dishes can be made that are not only nutritious but pleasing to the palate.

A person can pass through weather that may be intensely hot, in a comfortable manner, if the food be properly selected and the above suggestions can be put into practice with most excellent results.

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TRADE MARK
REGISTERED
WATERPROOF
LIQUID COURT PLASTER

Heals Cuts, Abrasions, Hang-Nails, Chapped and Split Lips or Fingers, Burns, Blisters, etc. Instantly Relieves Chilblains, Frosted Ears, Stings of Insects, Chafed or Blistered Feet, Callous Spots, etc., etc.

A coating on the sensitive parts will protect the feet from being chafed or blistered by new or heavy shoes. Applied with a brush and immediately dries, forming a tough, transparent, colorless waterproof coating.

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Can be attached to a door, wall or window casing.
Noiseless and Rapid
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Bronze Medal, Paris Exposition, 1900

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Hunting Boots made permanently watertight, soft and flexible, never water-soaked, hard and shrunken.

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Great for all winter footwear and school shoes. Prevents cracking—shoes outwear others 3 or 4 times.

A boon to ladies wearing *thin-soled shoes.*

Fine for Saddles, Bridles, all Harness. An unequalled Gun Oil, prevents rust, cleans, wipes close.

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Would you like to build it up?

How are your Lungs?

Would you like to expand them?

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If so, send me 10 yearly subscriptions to RECREATION, accompanied by a money order for $10, and I will send you a new

Professional Punching Bag

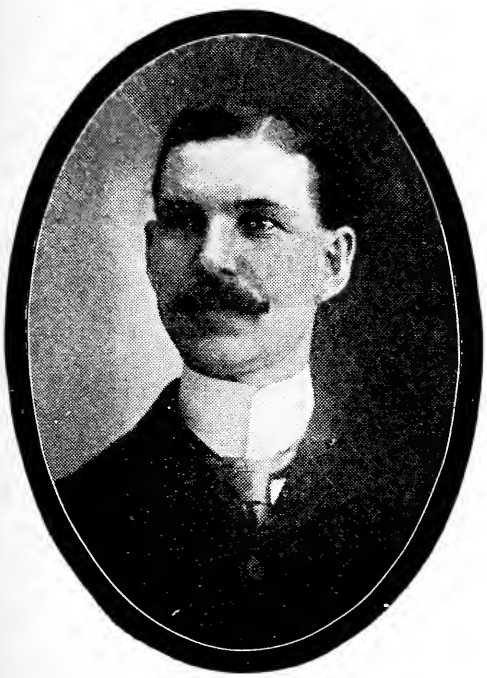
made by H. D. CRIPPEN, No. 52 BROADWAY, NEW YORK, and listed at $6.95.

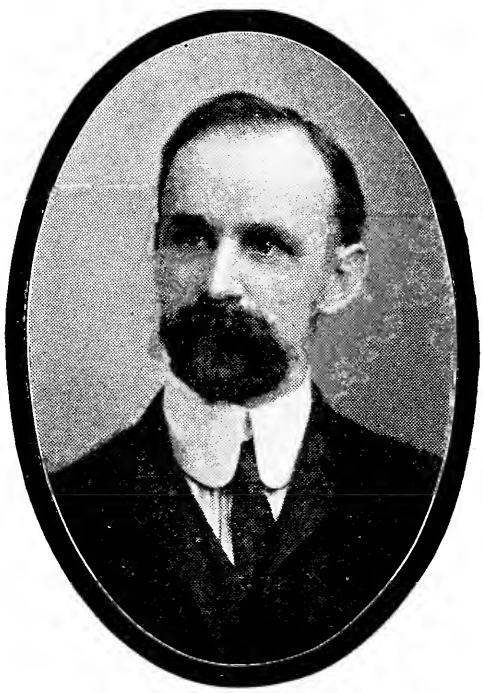
There is a frame with the bag that you can attach to a door casing, a window casing or a wall, or a board fence, or anywhere else you may see fit to put it, and you will thus have a small gymnasium of your own. The Crippen bag is one of the liveliest ever devised, and if you will put 20 minutes a day on it, for a month, you will find a wonderful improvement in your muscle and your health.

Sample copies of RECREATION, for use in canvassing, will be mailed free.

Blood Poison Cured Free.

The Remedy is Sent Absolutely Free to Every Man or Woman Sending Name and Address.





Chief of Staff and Head Consulting Physician of the State Medical Institute.

A celebrated Indiana Physician has discovered the most wonderful cure for Blood Poison ever known. It quickly cures all such indications as mucous patches in the mouth, sore throat, copper colored spots, chancres, ulcerations on the body and in hundreds of cases where the hair and eyebrows had fallen out and the whole skin was a mass of boils, pimples and ulcers, this wonderful specific has completely changed the whole body into a clean, perfect condition of physical health.

Wm. McGrath, 48 Guilford St., Buffalo, N.Y., says: "I am a well man to-day, where a year ago I was a total wreck. Several doctors had failed to cure me of blood poison. I was rid of my sores and my skin become smooth and natural in two weeks, and after completing the treatment there was not a sore or pimple on my body, and to-day I am absolutely well."

Every railroad running into Ft. Wayne brings scores of sufferers seeking this new and marvelous cure, and to enable those who cannot travel to realize what a truly marvelous work the doctor is accomplishing, they will send free to every sufferer a free trial package of the remedy so that everyone can cure themselves in the privacy of their own home. This is the only known treatment that cures this most terrible of all diseases. Address the State Medical Institute, 3693 Elektron Building, Ft. Wayne, Ind. Do not hesitate to write at once, and the free trial package will be sent sealed in plain package.

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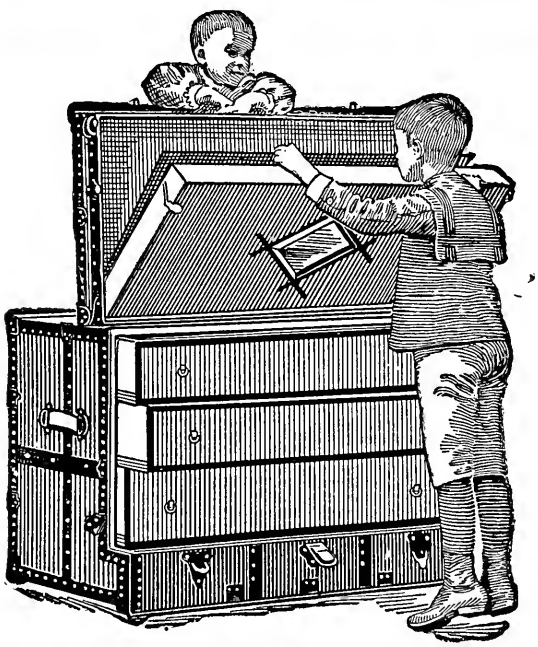

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F. A. STALLMAN,

87 W. Spring St., Columbus, O

You are constantly receiving reports which point to the advance of the game-protection sentiment and the agency of RECREATION in furthering it. Here is one which to me means much. Sanbornton, N. H., our summer home, is not in the backwoods of the State, but is a rural hamlet 20 miles from Concord. L. A. S. posters have been put up in many places, and your magazine has gone to many homes in the vicinity. Before this happened the occasional deer which entered the region from the North mysteriously disappeared, and their numbers showed no increase. More recently they have appeared in all the surrounding territory, and bid fair to multiply. A few weeks ago 4 young men put their dogs on a deer track and killed the deer. A deputy game warden took up the case, and eventually the men were fined $100 each and sentenced to 6 months' imprisonment. This punishment was, however, remitted on the killing of the dogs. At the same time the lesson was a salutary one, and it is safe to say the deer will go unmolested in this section. I believe RECREATION'S part in the matter can hardly be over estimated.

Ernest Russell, Worcester, Mass.

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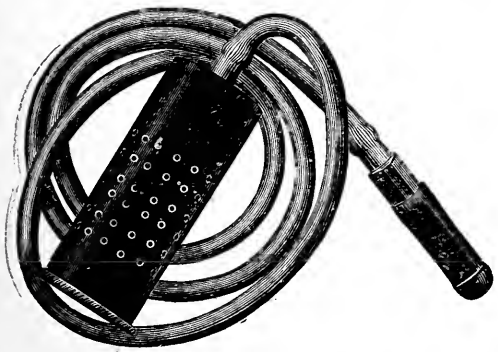

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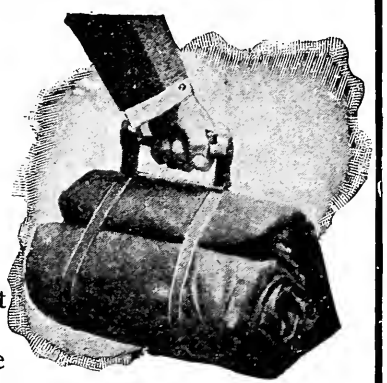

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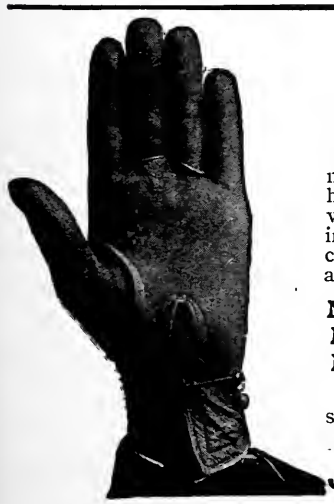

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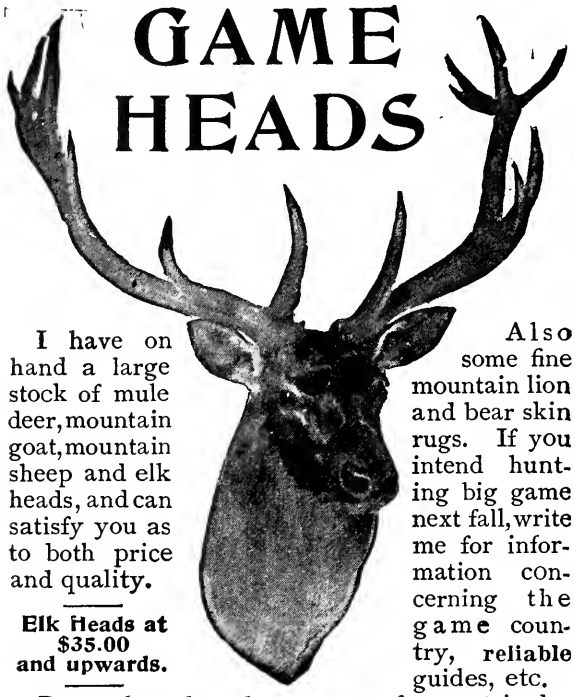

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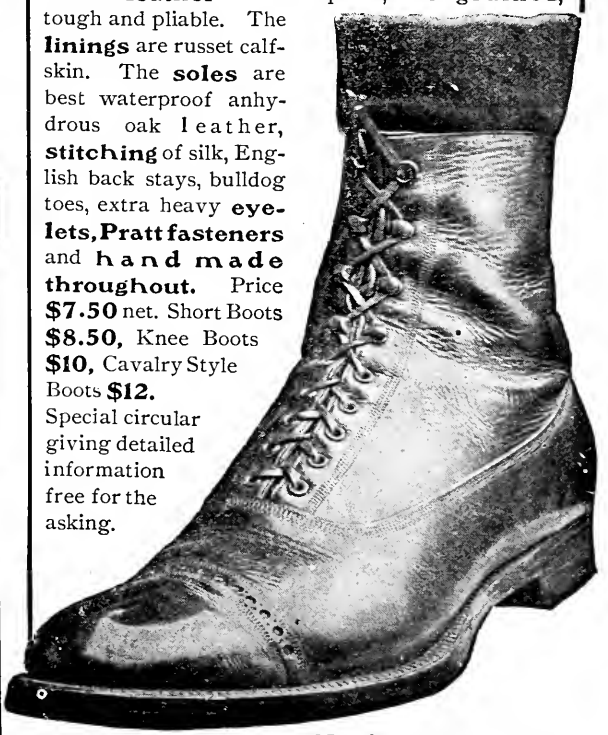

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I WILL accompany, direct, furnish camp outfit and camp ground on my own island in upper French River, Canada, for four or five gentlemen sportsmen, (one physician) from July 15th till Sept. 5th, for my expenses, for the trip. Or, I will act in above capacity and in addition furnish transportation and every other necessary expense of the entire trip for the time from Cleveland and return for $175.00 each. The above will include special steamer service, once a week from North Bay, to our camp, with mail and provisions. Also a guide and oarsman and rowboat, for each two persons every day, a cook, provisions and every attention expected in tent life. Grouse and duck season opens Sept. 1st. Trout, Green and Black Bass, Pike, Pickerel and Muscalonge season open entire time, and in the numberless rapids and bays there are waiting for fly, bait or troll more strikes for the fisherman than any other section of this continent. Camp ground is 40 miles from white settlement and has never been fished by the public. The scenery is most rural and beautiful. The banks are timbered with scattered pine among the rocks. No mud. I will give reference in return for reference if desired. Write me care Sporting Goods Department, The Geo. Worthington Co., Cleveland, Ohio.

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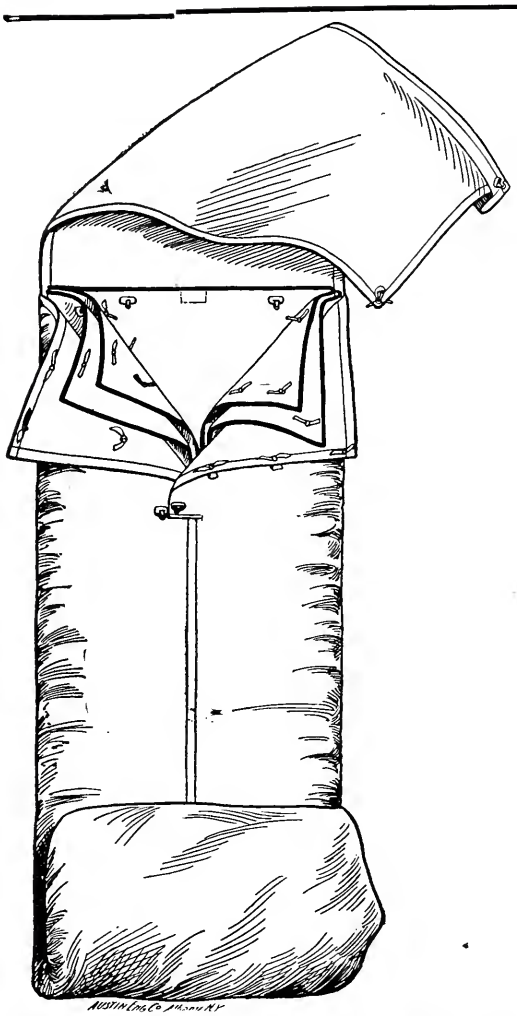

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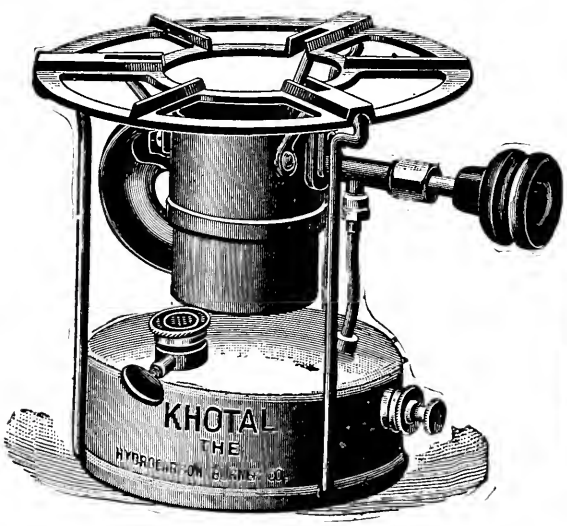

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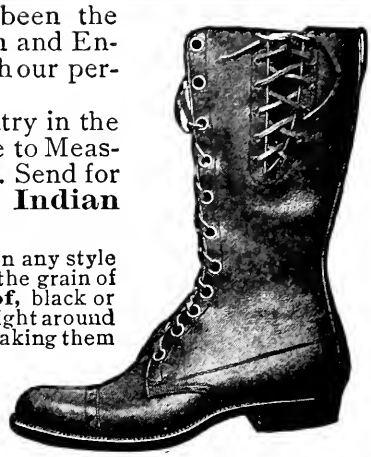

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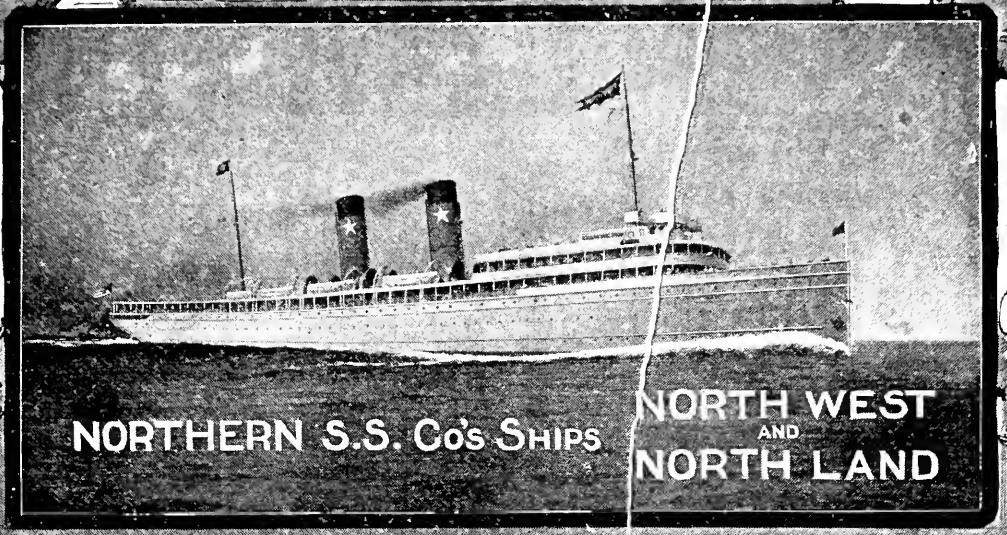

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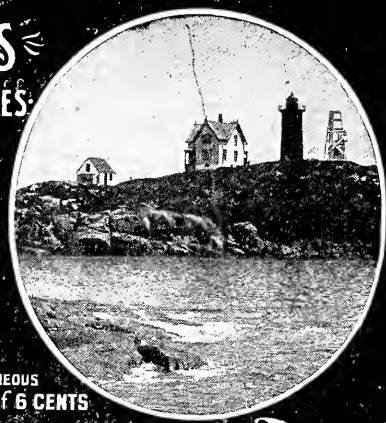

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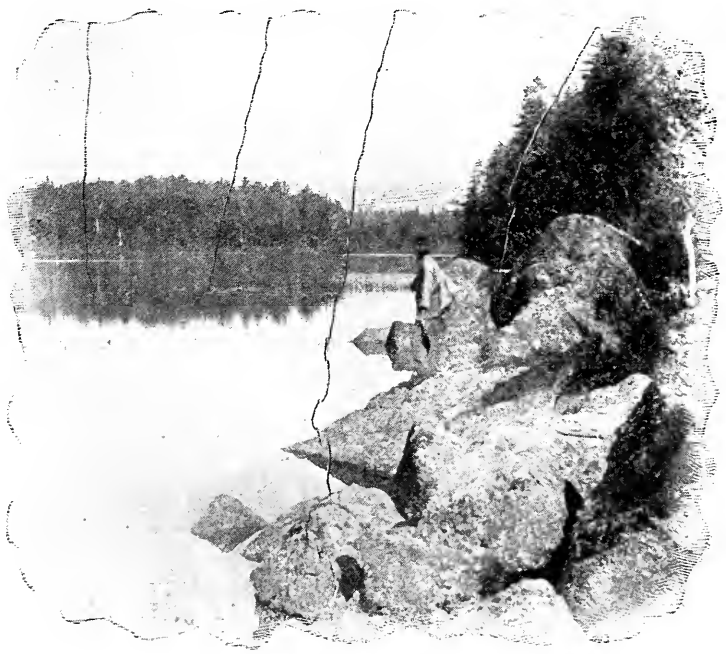

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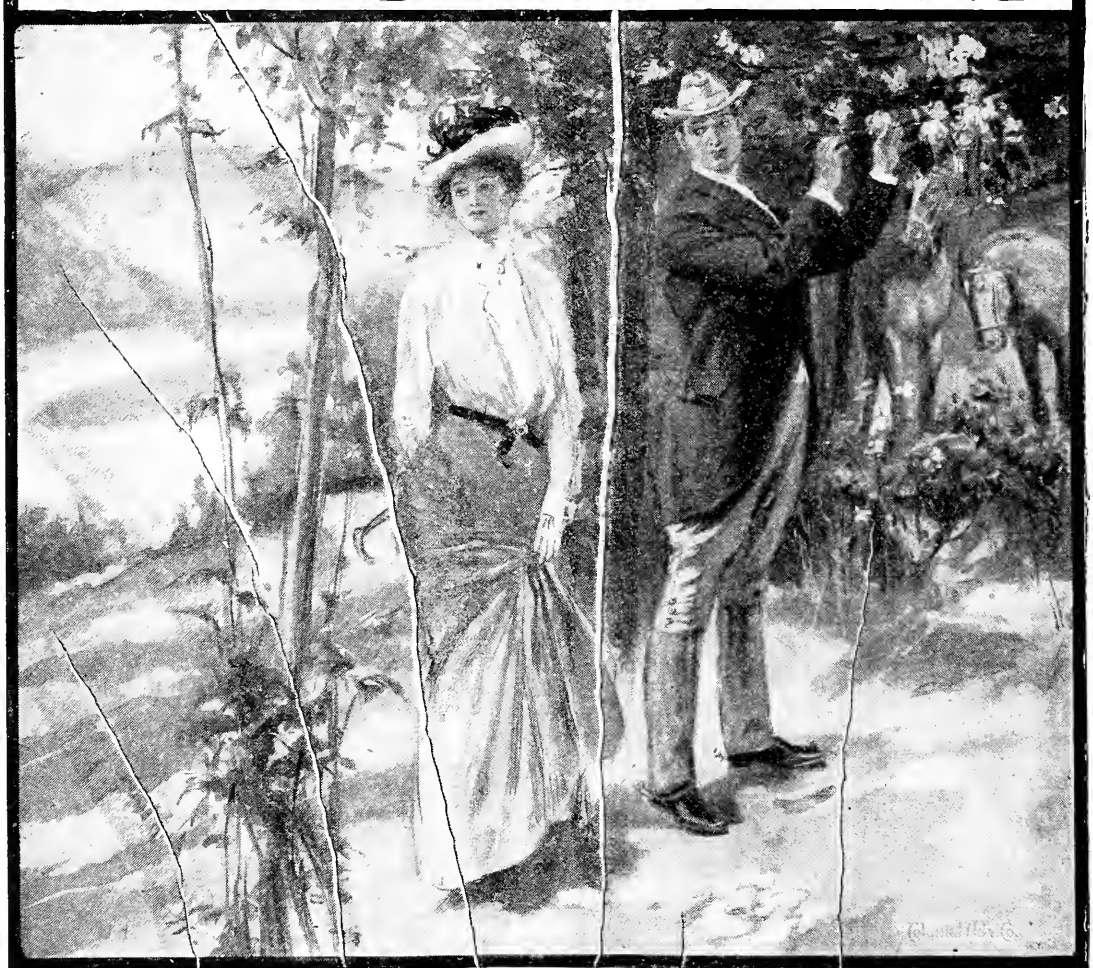

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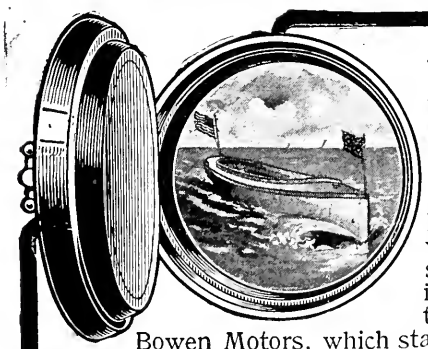

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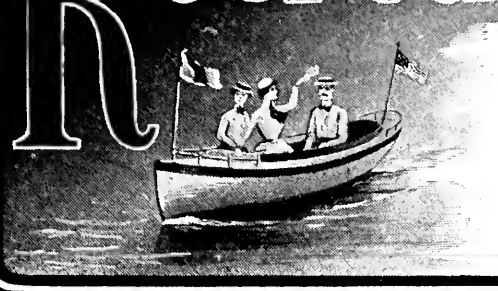

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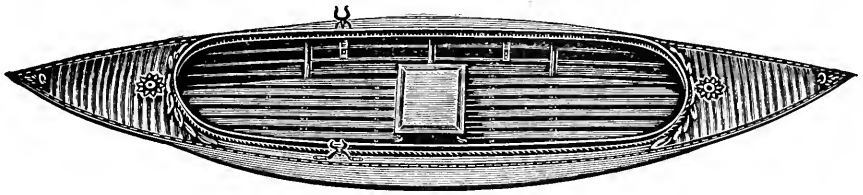

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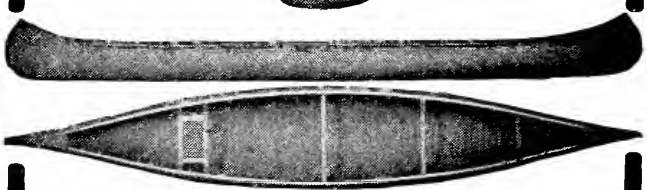

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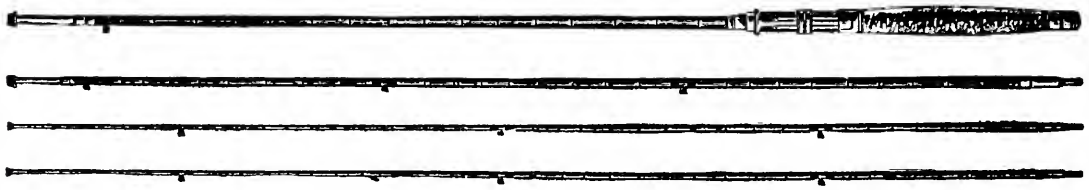

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3 piece and extra tip, cork grip, in wood form

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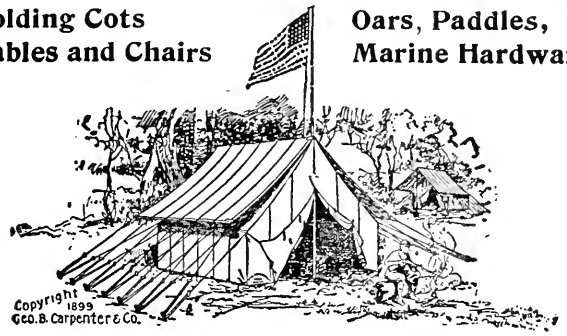

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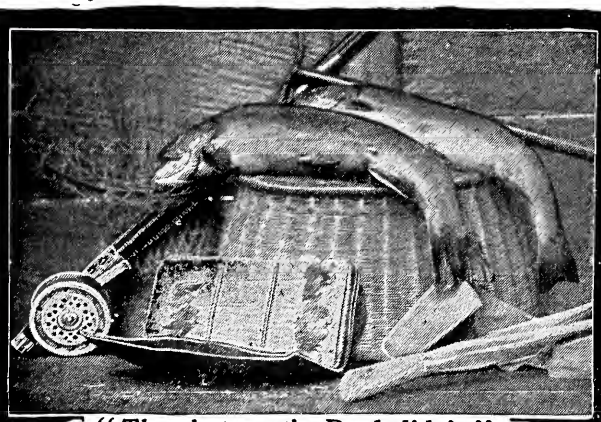

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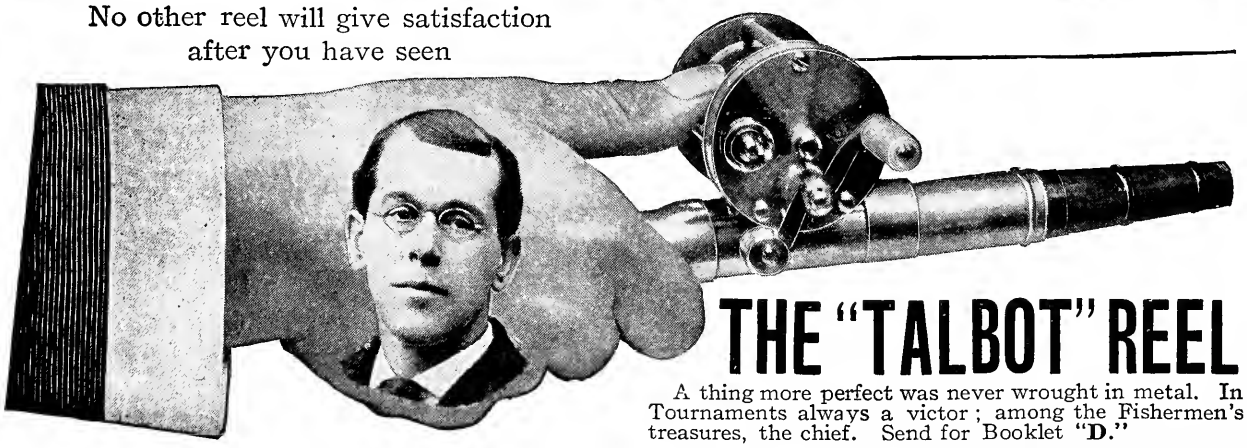

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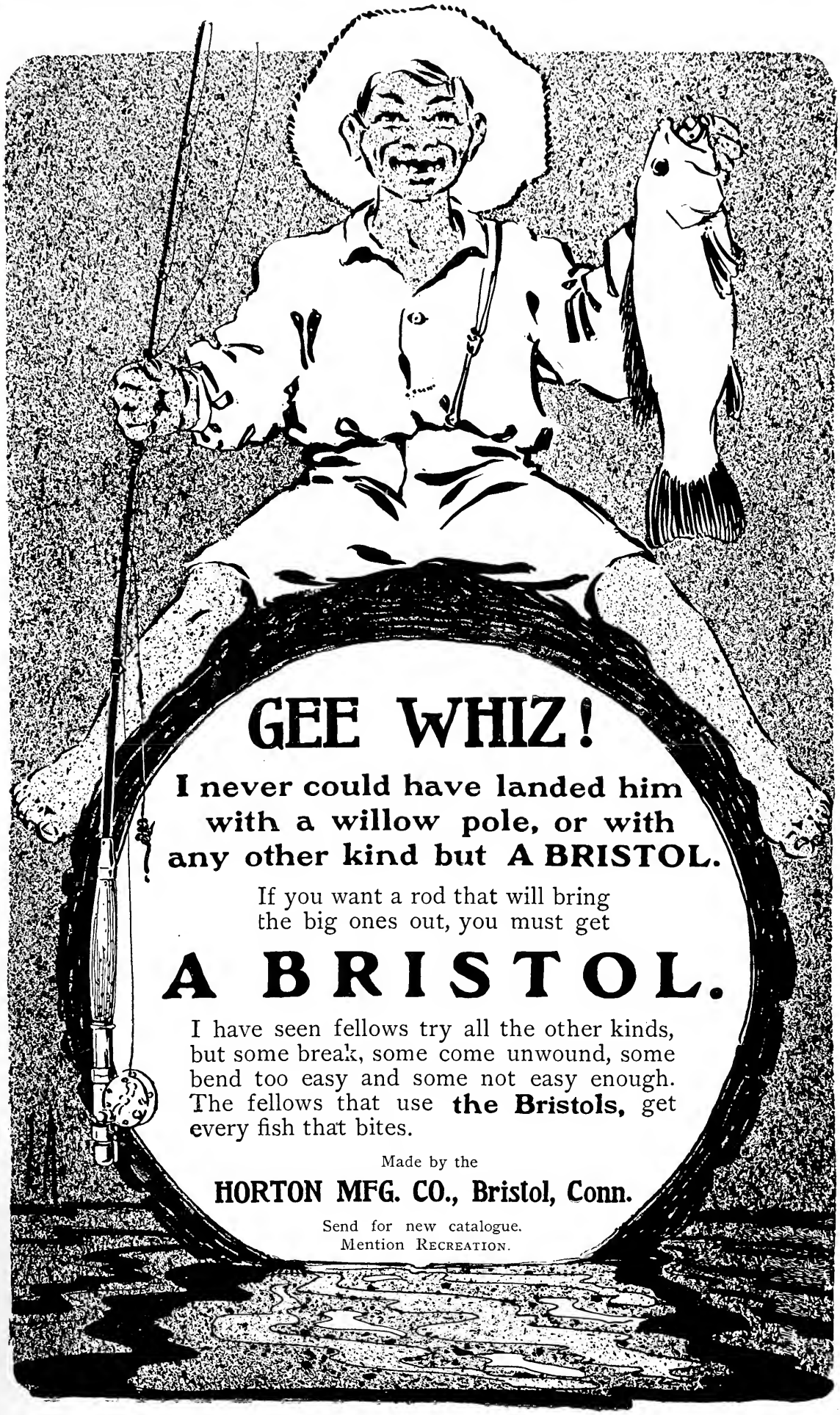
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I never could have landed him with a willow pole, or with any other kind but A BRISTOL.
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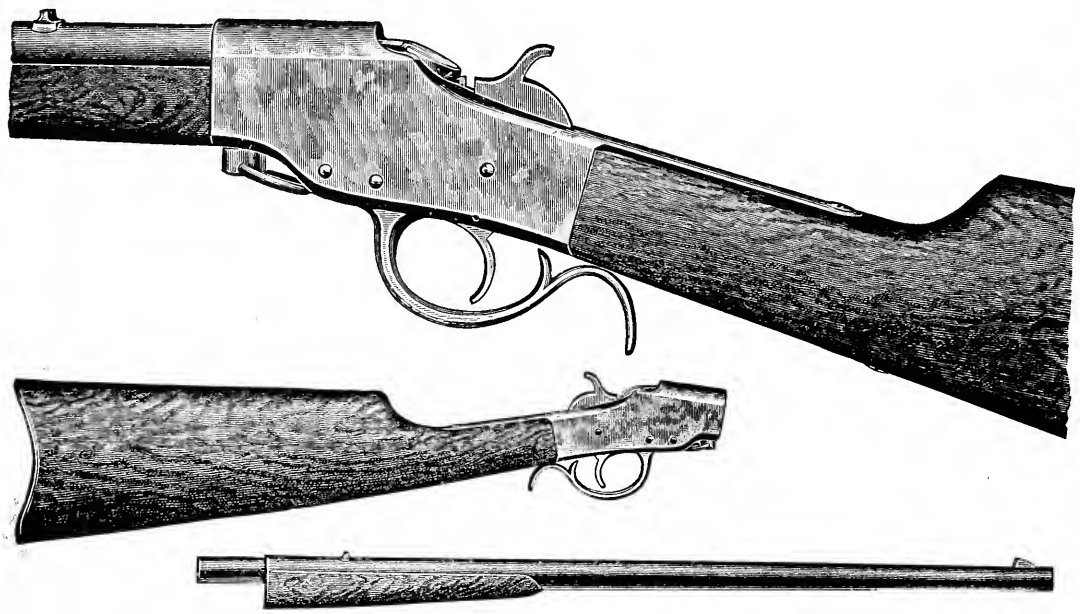

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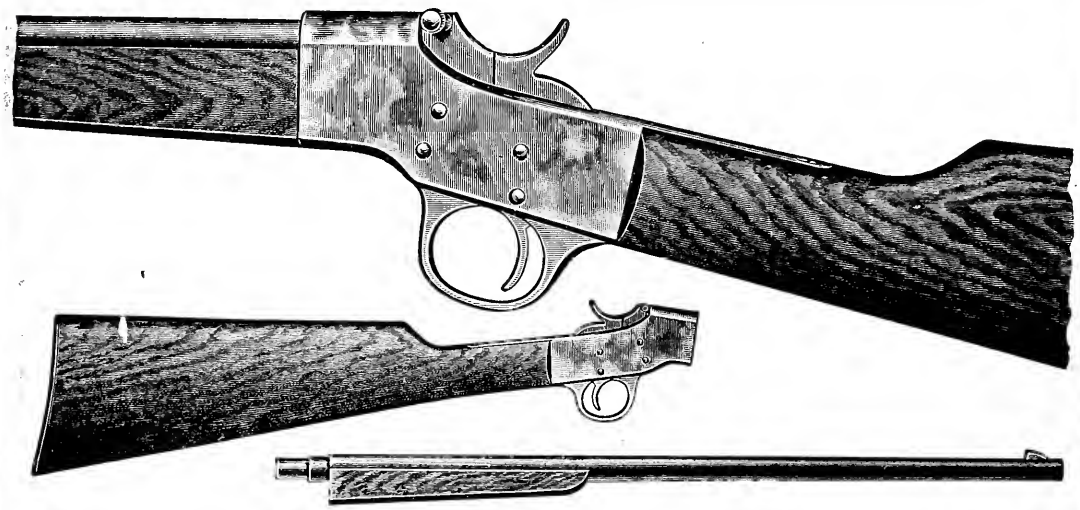

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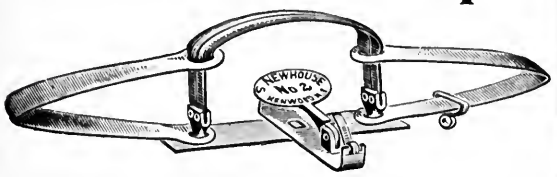

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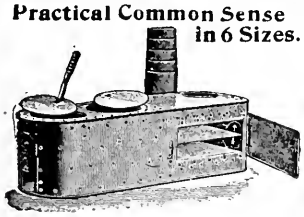

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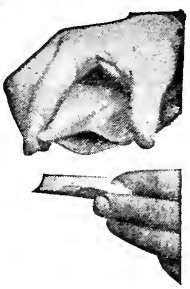

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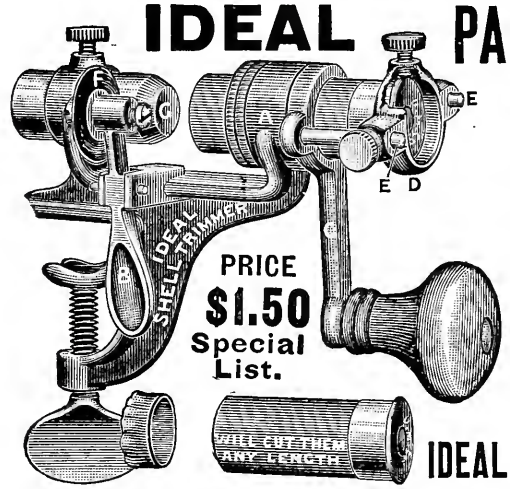

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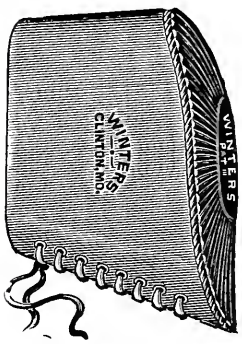

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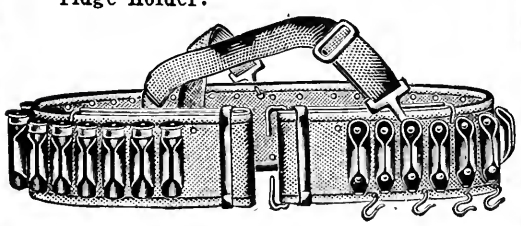

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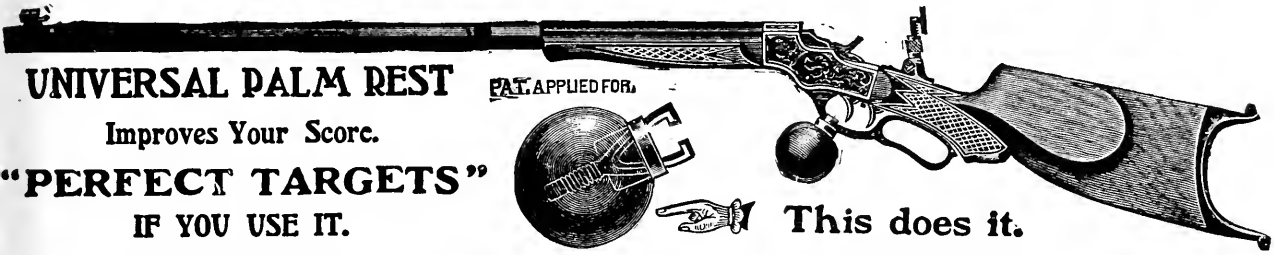

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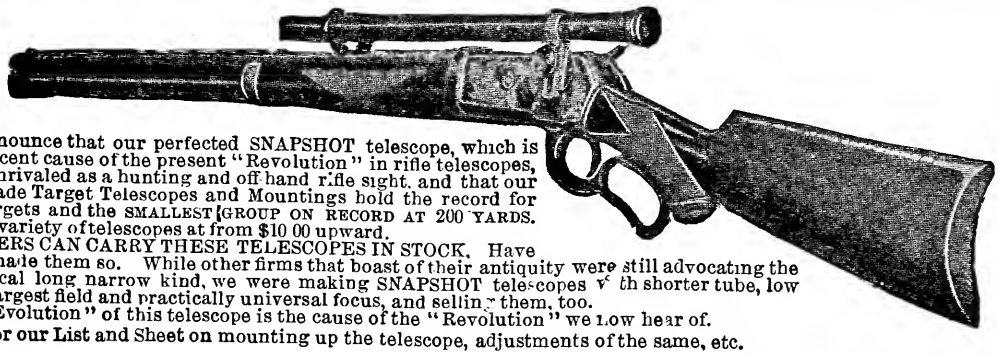

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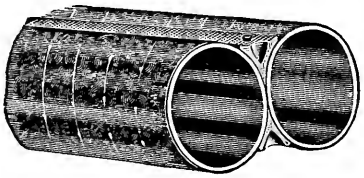

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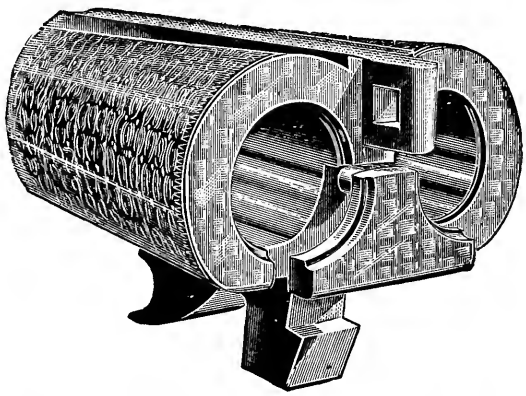

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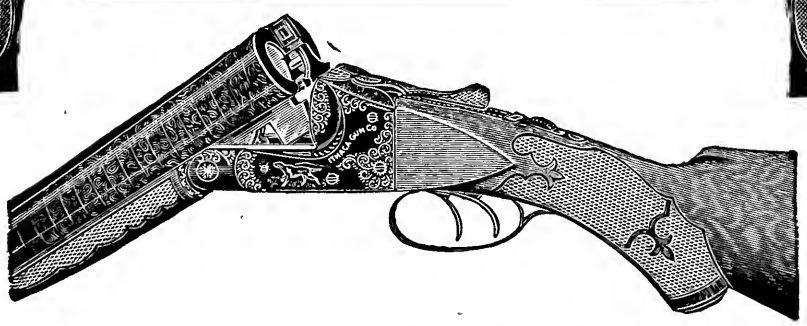

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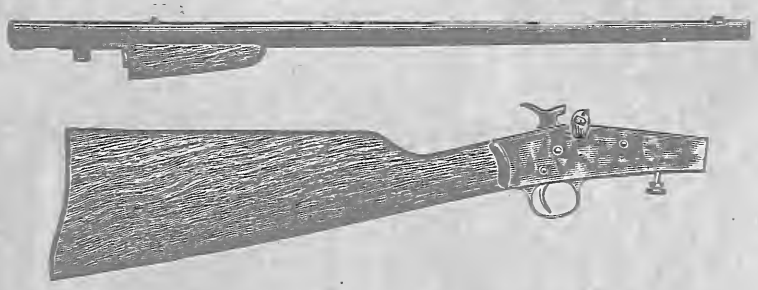

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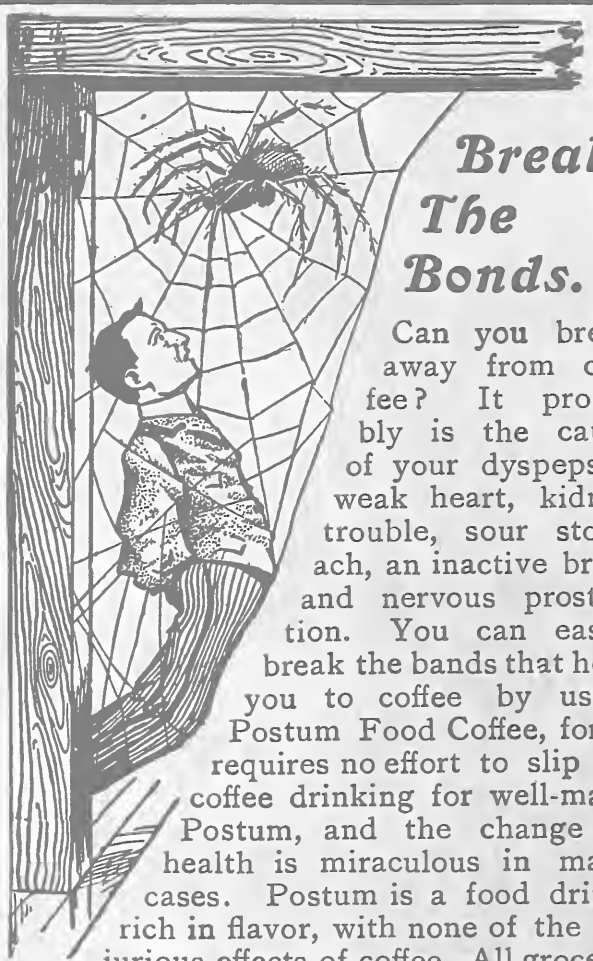

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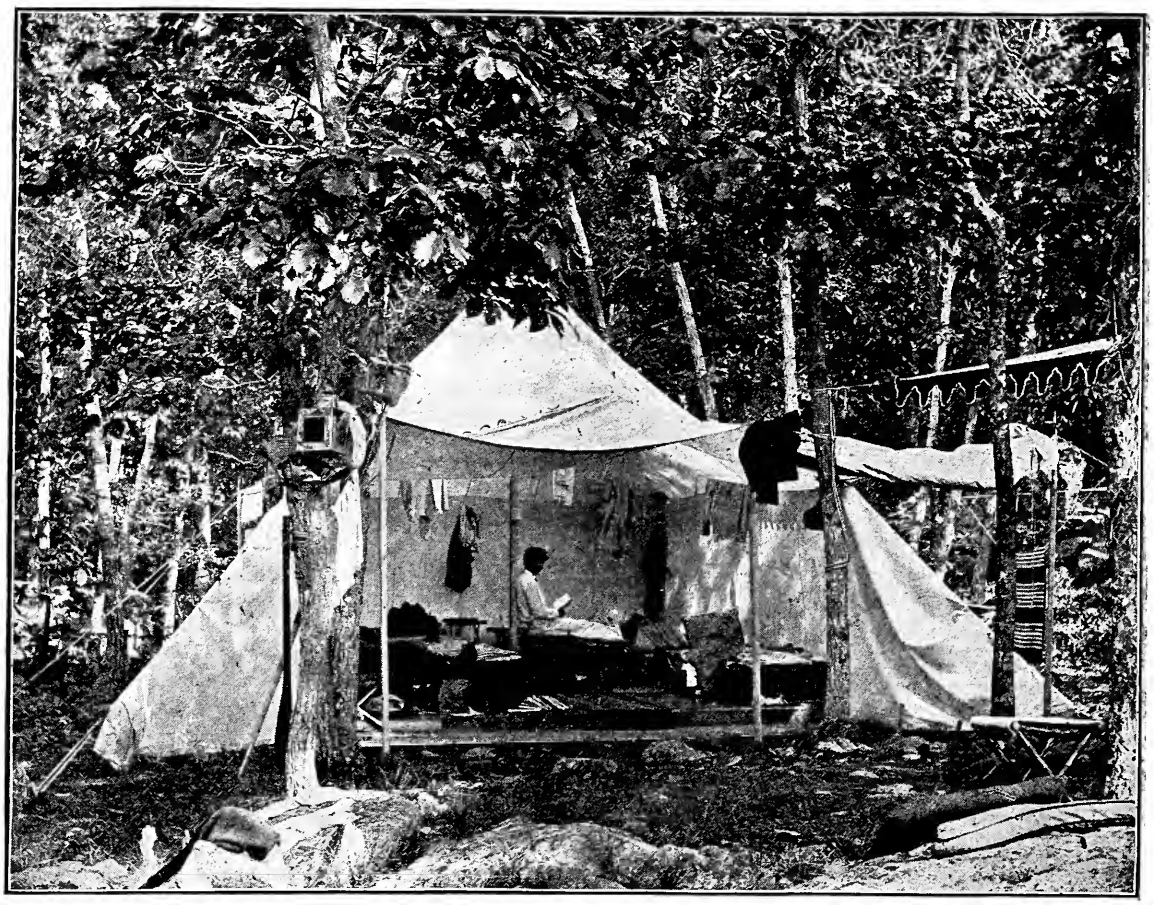

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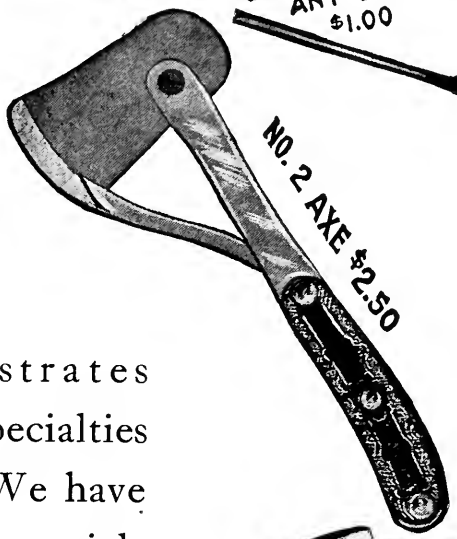

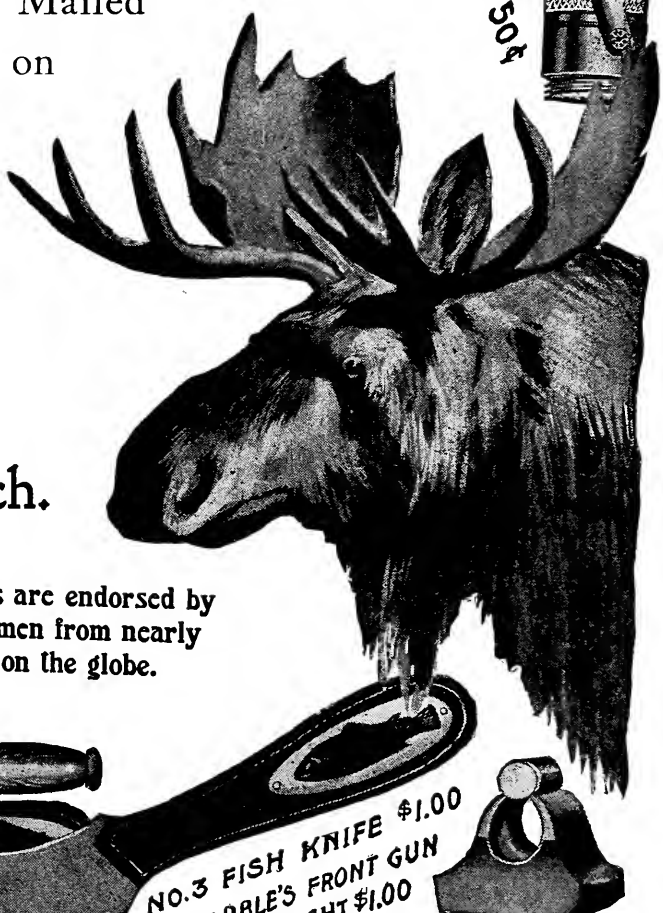

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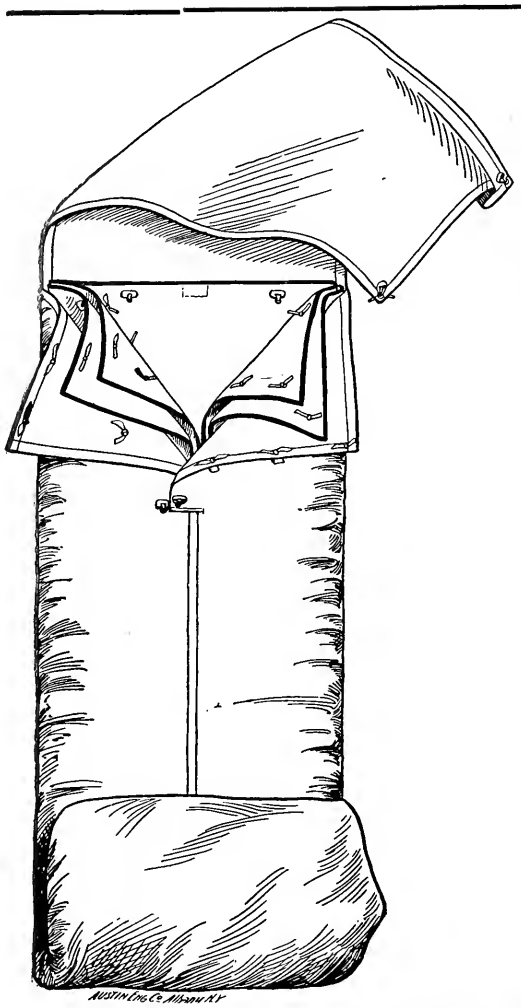

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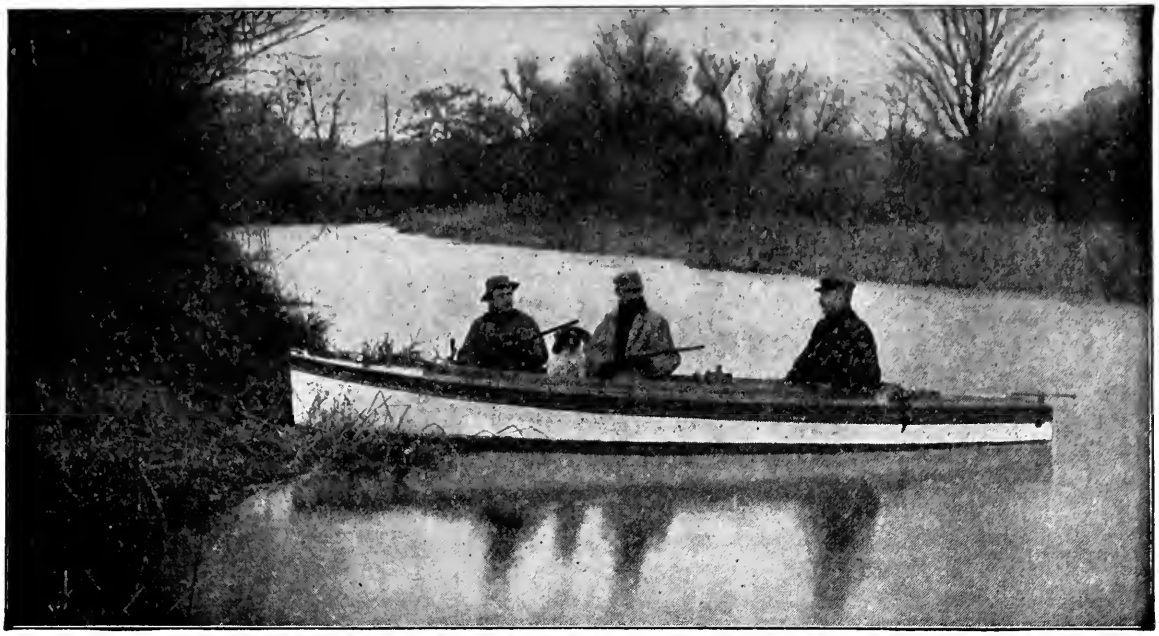

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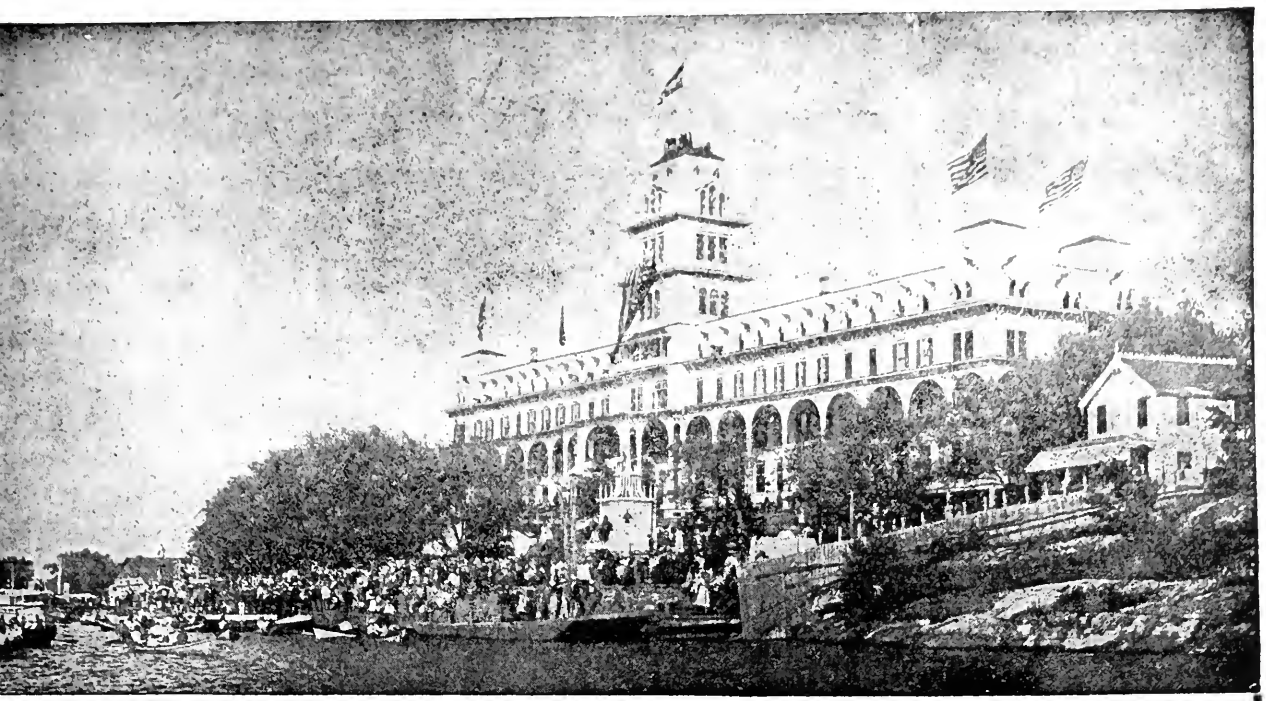

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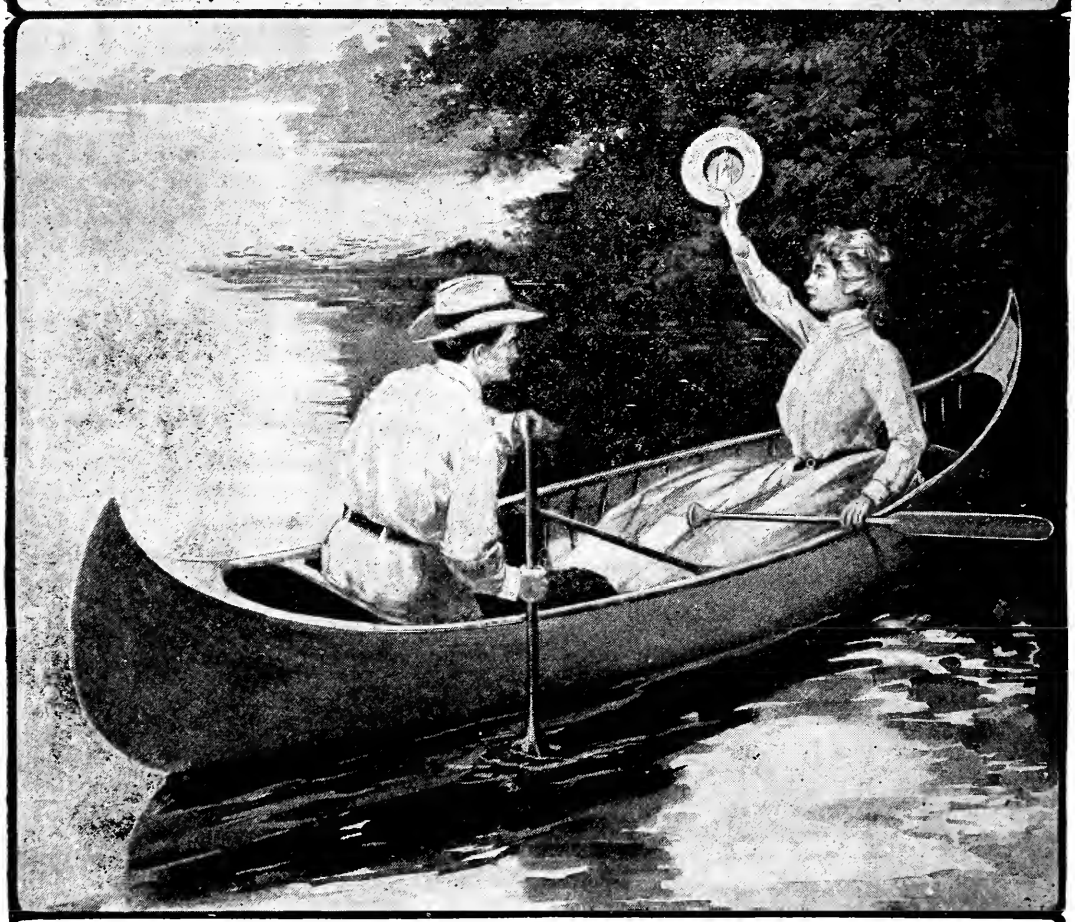

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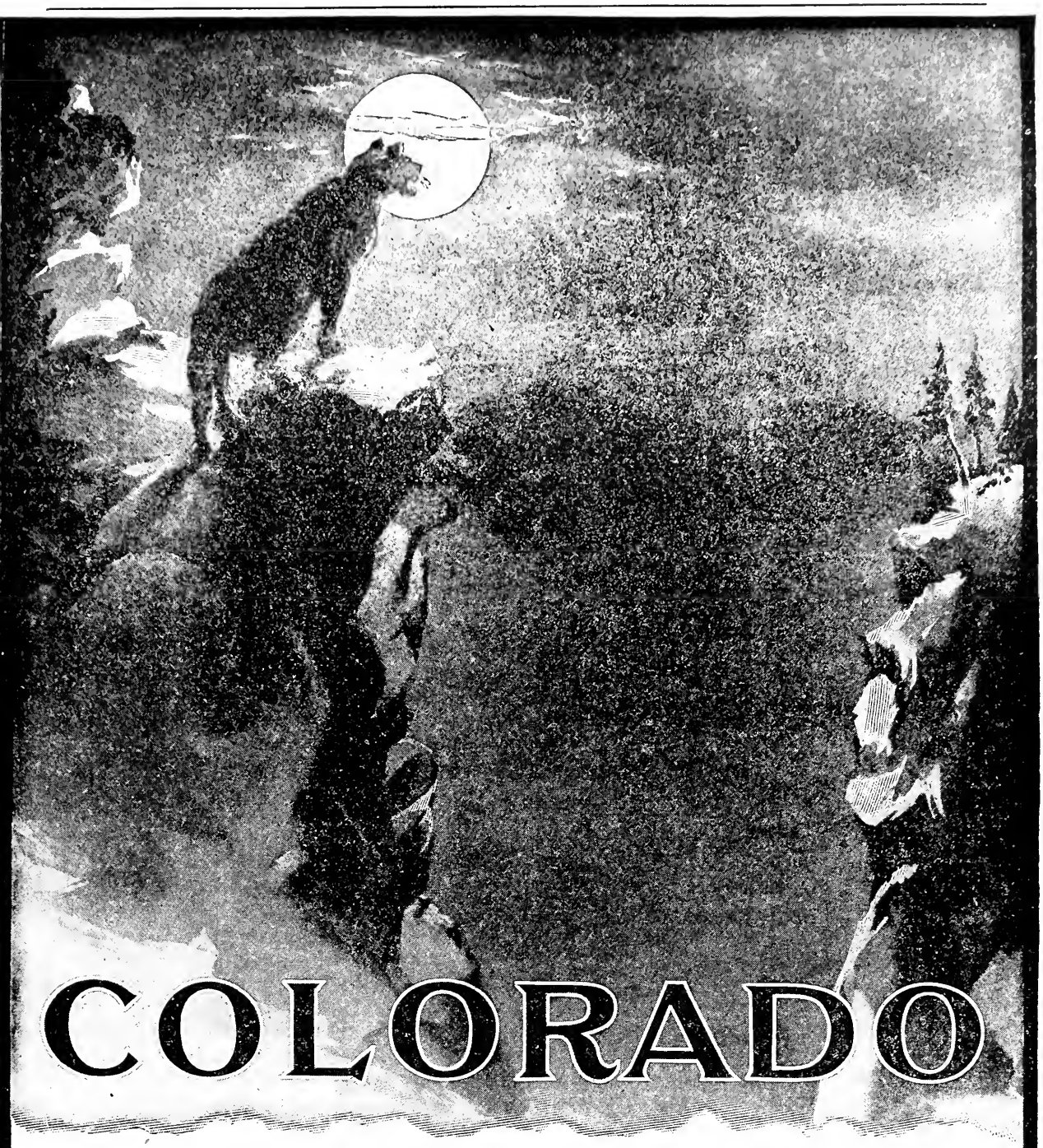

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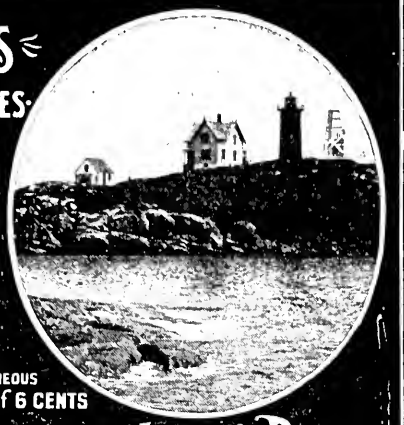

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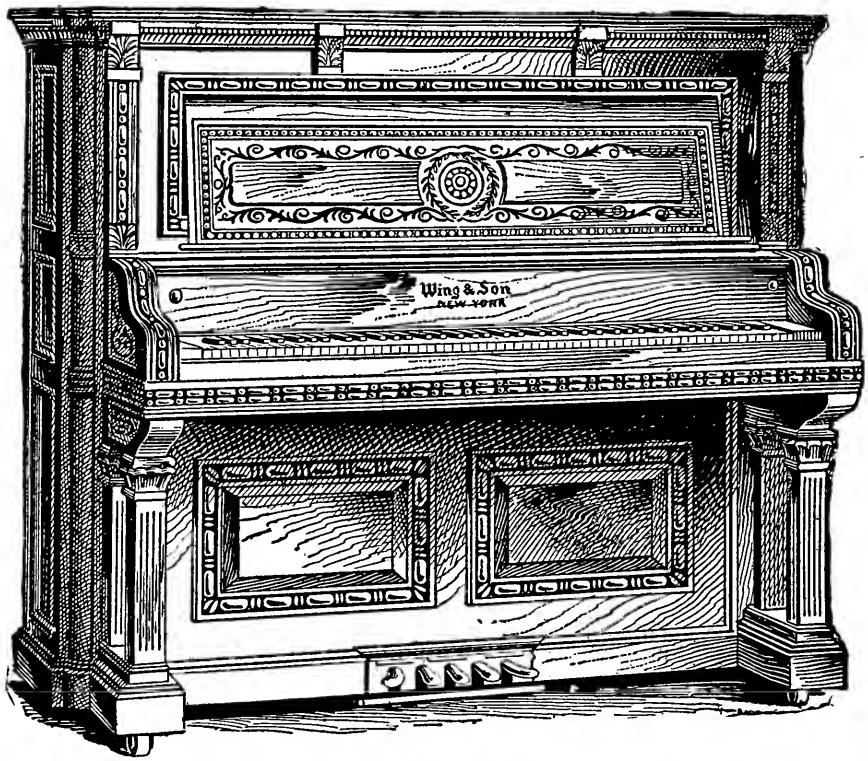

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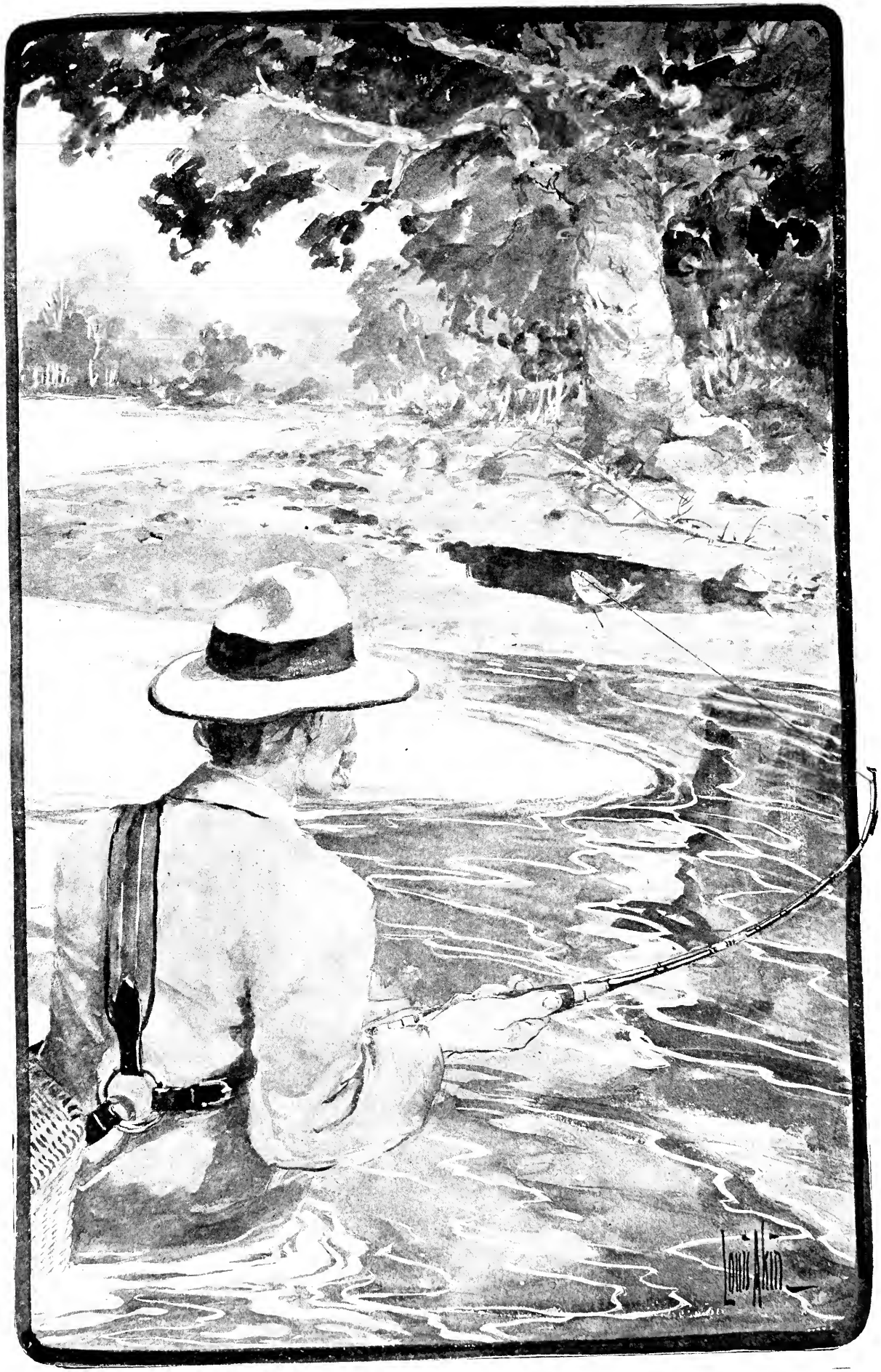


HE SHOT CLEAR OUT ON THE SLOPING GROUND.

RECREATION

Volume XVII. AUGUST, 1902. Number 2.

G. O. SHIELDS (COQUINA), Editor and Manager

AN UNEXPECTED CATCH.

DON CAMRON.

THE day was perfect for trout; the sun just visible through the soft gray clouds, a South wind blowing gently and the waters of Big creek running black over the stones. Perfect, because the trout knew that in such weather they could move out from their secluded hiding places into the swift, darkened waters of the stream without being observed, and from the mossy side of a rock or a sunken log they could watch with red-rimmed, protruding eyes for floating dainties.

I was carefully working my way down the stream, using the finest of tackle and fishing with all the skill I possessed. The water was high and the ground well fished, and, as usual, the big fellows were more than shy. Six already lay in my basket, and the day was young.

Just below where I was fishing, the stream is joined by a small creek, the outlet to a dainty little lake snugly nestled in the hills about a mile away. This lake is stocked with big mouth black bass, and at certain times of the year affords excellent fishing. Occasionally some of these bass work down the brook into Big creek, and many a good one has been caught in the big, deep hole where the streams join.

As I approached the place a certain unexplainable condition of the water, which can only be seen by anglers, told me there was a big fish in the pool, and I resolved to do my best to hook him. From behind a friendly willow scrub I made a cast. Twice I sent the flies hissing through the air across the water, to dry the feathers and attract a possible fish's attention. The third time I let them sink, fluttering down close beside a large patch of muddy foam. The Reuben Wood tail fly scarcely touched the water when a huge bass lurched half out and closed 2 rows of teeth around it. I was frightened, and must confess I trembled like a tenderfoot, but instantly resolved to fight to the last ditch. Instinctively I gave that well known twitch of the wrist and fastened the barbed steel deep into his bony jaws. The next instant he sprang clear of the water and fell with a whack on the slackened line. Then came a lunge so quick and unexpected that he snapped off a foot and a half from the tip of my 10-ounce lancewood, instantly changing it into a respectable bass rod.

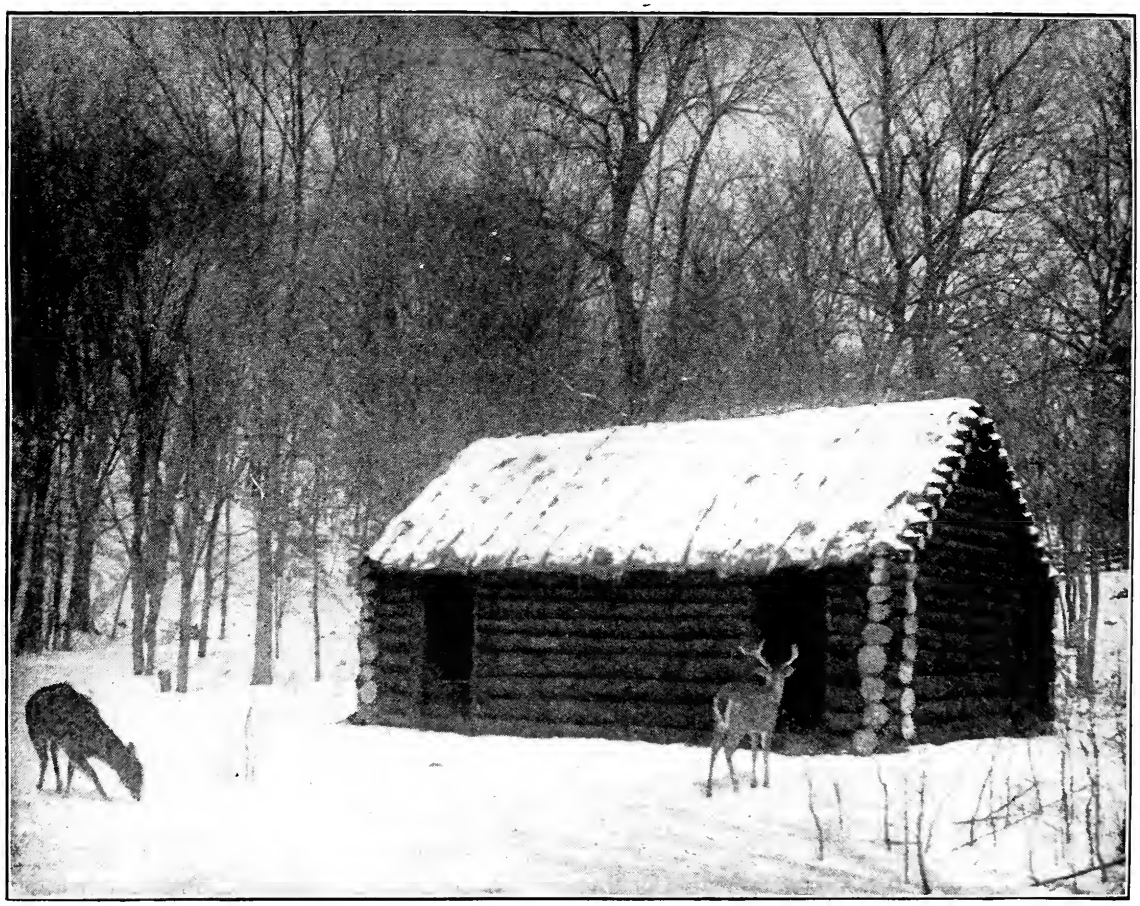
The piece of tip slid down the taut line close to the fish's mouth, greatly hindering him in his actions. Again and again he jumped, the piece of steel rattling against his scaly sides and goading him on to greater fury. Over he went, skipping and splashing over the water like a flat stone. It was only by luck that I slackened the line at the right moment. I have hooked many a big fish but I never saw one so gamy as he was. From the first I realized that I could never land him with such light tackle and a remnant of a rod. It was only a question of time when he would get a fair pull. Then something would part.

Up and down he dashed, trying in every imaginable way to throw his weight on the line. I gave the reel just brake enough to keep a steady

pull at his head, and avoid a tug-of-war which would have resulted in a division of the tackle. Forward and back he flashed, with changes that were almost too complicated for human ingenuity to understand, apparently getting fresher and madder every minute. Inch by inch the reserved line vanished from my reel, and I was waist deep in the water. Suddenly he dashed straight down the stream and I can safely say I made the first hundred yards in less than 12 seconds. My crippled rod curled and twisted until I could hardly hold it, as I crowded on the brake, for the last few feet of line were rapidly slipping off the reel. I held his head high and kept him close to the shore so he could not have the help of the swift water.

A little below me the creek turned sharply, and it was evident the bass was either unacquainted with the place or too excited to notice it, for instead of making the turn he shot clear out on the sloping gravel and flopped over into a pool of stagnant water, stranded high and wet.

A madder fish I never saw. He was so mad and full of fight that I had to rap him on the head to keep him from flopping himself to pieces and destroying his beauty. That evening I weighed him in the village grocery amid a crowd of admiring spectators. He tipped the beam at 7½ pounds.



AMATEUR PHOTO BY E. E. C. GIBBS.

CURIOSITY.

Made with an Eastman Kodak and a Bausch & Lomb Lens.

A YUCATAN SHARK.

JACQUES H. TRACY.

Perched on the ship's rail, we parboiled under the hot Mexican sun, and intently watched the rapid motions of a shark coquetting with the ripe pork at the end of our line. He could not decide to take it, as it was Friday, so our hopes were alternately raised and dashed as he one moment popped up and circled around the bait, then dived out of sight. A Northern constitution can not long stand a thrill a minute, under such a sun, so we gave him up at last, and retreated to the smoking room. As the soothing aroma of good tobacco sifted through the air, the chief became reminiscent.

"The shark census has fallen off somewhat here," he said. "There used to be a dozen for one now; and such pampered tastes as these have! That fellow's been turning up his nose at the cook's good pork for the best part of the morning and it's an even chance that he'll not take it at all. We used to heat a shot red hot, rap it in a rag, and drop it overboard, and by the time it hit the water a shark had it. He made the water boil! The cook used to lower a bucket over the side for some of the water to boil eggs with! Once we were about a day's run from Progreso, when we spotted a shark in our wake. There was nothing remarkable about that, but he seemed as long as a skiff and as slender as a plank. After we reached Progreso the passengers concluded to catch that shark and see what was the matter with him; so they borrowed my tackle and we all piled aft, to see the fun. He took the bait and bolted, but we soon tired him out, hoisted him aboard and I shot him. When he had stopped slapping around, a Mexican produced a carver from somewhere about his raiment, which consisted of shirt and drawers, and slit the shark open."

"Of course you found your great grandfather's gold plated Waterbury, which had been dropped overboard at Hong Kong, still keeping standard time?" we queried wearily.

"No," declared the chief, "the coroner's evidence showed that the shark had swallowed an empty water cask, open end out, and everything he had eaten in weeks had gone into that barrel. He starved to death."

DOG DAYS.

A. N. KILGORE.

Sho,
Feel too dog-gone lazy t' live.
'D like t' stop my works jes' a minit
An' let 'em rest. Gee whiz!
What wouldn't I give
T' flop right down 'longside some crick
An' do nothin' 'cept watch th' skate-bugs,
An' let th' shadders play peek-a-boo
Over my homely features.
Don't b'lieve I'd want t' watch th' bugs nuther—
Too much trouble. Let 'em watch me.
Nope, wouldn't want t' fish. T' much like work.
Wouldn't want t' do nothin'
But lay there an' mope.
'Twould make me tired t' even hear th'
Crickets workin' thereselves t' death.
'Twould by jing.
'D have t' shet my eyes
So 's I couldn't see th' leaves
A wigglin' 'round on their rickety stems.
Wind's doin' that.
Why in thunder don't it stop workin' too?
No,
I b'lieve I'd let it blow.
'Cause if it stopped, I'd have t' fan. An'
I ain't real stuck on that idee.
'Nother thing. I wouldn't want
T' hear no potterin' stream
Sloshin' over no rocks.
'Twould be too irritatin' t' my nerves.
Stream 'd have t' shet up while I was there.
An' if any feller come monkeyin' 'round,
Abustin' up th' harmony o' my surroundin's,
After I got settled,
I'd settle him.
Only 'twould take too much trouble.
Oh, Hanner! But how
I could loaf jes' about now.

AMATEUR PHOTO BY ANDREW EMERINE JR.

AN IRISH STEW.

Highly commended in RECREATION'S Sixth Annual Photo Competition.

AMATEUR PHOTO BY J. F. NEWCOMB

REACHING.

Made with Premo Camera.

MOOSE FOR DINNER.

GEO. H. ROOT.

October 11, 1898, I started with T. A. Strait, an old time hunter, trapper and guide, on a 30 days' hunt for big game. Thad is a dead shot, an expert with the rod, and an ideal hunting companion. I was intensely proud as I climbed on our wagon, behind 4 ponies, and rolled away to the North, where in the distance shone the snowy peaks of the Rockies.

Before we had gone 5 miles Mr. Strait had bargained with me to take it day about rustling camp meat and it fell to my lot to get game for supper. I got it. Just before we went into camp I caught sight of 2 lean, old sage cocks, and when they raised I dropped them both. Mr. Strait objected strongly to that kind of diet, and said many times before we started home, that he wished he had agreed to furnish all the camp meat himself.

Nothing broke the monotony of our desert drive until we reached Cottonwood creek, where he saw thousands of antelope.

By October 22d we were settled in our permanent camp. One morning we saw a band of elk coming down the mountain North of the camp. They were about 200 yards away, and in less time than it takes to tell it, each of us had one down. The remainder of the band had turned into the timber and were out of sight. We had shot them from our very door, and only 125 yards away. When we saw no more were coming we finished our breakfast. It took us till noon to take care of our game. We spent the remainder of the day in the mountains and saw many fresh elk signs. At night a bunch of 10 or 12 came within half a mile of our camp.

The next day, as I started to climb the long mountain slope, to get out of the canyon, I could see, away to the Northwest, a snow storm coming, and, by the time I had reached the top it was upon me. From the top of the mountain I plunged directly into the dense forest, out of the storm, and suddenly found myself on a high precipice overlooking the North branch of Horse creek, thence down the steep mountain side, to the lead of the creek. I followed the creek about a mile and turned into the forest, where I came upon a trapper's deserted cabin, buried away in the thickest of the forest. The door, which was made of elk skin, stood ajar. I pushed it wide open with the end of my rifle, and a wild commotion followed. I thought I had disturbed a meeting of wildcats, or a family of bears. It was too late to retreat honorably, so I ventured a peep within. It was only wood rats, hurrying and scurrying they knew not where, only to hide. Inside the hut, and strewn on the dirt floor, were skeletons of bear paws, so closely resembling human bones, that the sight of them made me shudder. On the floor and nailed on the walls were skull bones of all the animals that belong to the mountain. I did not stay long in that gruesome place.

October 30th I made my record. Mr. Strait had gone out early to look for elk, while I stayed in camp to do our week's washing. I had my laundry spread on the sage brush, and had started dinner, when I stepped to the tent door and saw a moose standing not over 100 yards away. At first I hardly knew what it was. I do not know how long we stood looking at each other when I remembered I had a gun in the tent. In the few seconds it took me to step back and pick up my gun, the moose had started to climb the mountain. When I returned, gun in hand, ready for action, he had gone over 75 yards, at a swinging trot, and was just entering a belt of timber. I fired, tumbling him in a heap. Of course, it was a scratch, but I did not care. I had the moose.

Somehow I had no desire to rush up to my moose, but went about fixing my dinner for fully 20 minutes before I strated to climb up to him. During that period I had looked at him several times, but could not see him move, and it puzzled me to know why he did not struggle. When I started to climb up to see how he was getting along I took sounders on him. I was slipping along cautiously and was not more than 40 yards from him when I stepped on a dry brush. My blood chilled when he jumped to his feet and began to look for me! He was bristling all over and gave a snort that could have been heard a mile. Thanks to the protection of a small pine tree behind which I was standing, he could not see me. While he was searching in the direction of the sound he had heard, I let him have it square in the face and down he went again. That time I felt sure he was down for good, but not so. I kept above him, and behind the pine tree where I could see him and wait for him to die. It seemed he had no notion of dying, however. After waiting a while I threw a small stick which struck him fairly on the side and up he came. That time his attention was riveted on the spot where I had stepped on the brush, and I was in the rear. Blood was streaming from his nostrils, his long shaggy mane, or hair, seemed all standing on end, and he looked,

indeed, a formidable foe. I was in no mood to view his grandeur, but put a ball at the butt of his ear, which finished him.

My first shot, from the tent, had creased him. This method is frequently used in capturing horses. It stuns the animal for a short time only, and seldom proves fatal. When creased, an animal will lie apparently dead 5 to 25 minutes. It will then suddenly spring to its feet, and if it has not been tied securely away it goes.

My second shot was a trifle too low to break into the brain, and would probably have killed him in time. My third and last shot that struck the butt of the ear, went direct to the brain and ended his struggles.

CHAPMAN'S POND.

W. T. DUNCAN.

I know a lake near a mountain side
That rises and falls with the flowing tide;
For between the lake and the river clear
A raceway runs athwart the mere.

And the river runs to the sound afar,
Till it weds the sea at Saybrook bar;
Going and coming from tide to tide
With the grace of a coy, reluctant bride.

On its edge the willowy wild oats grow,
And mirror their wealth in the flood below;
There the wood duck floats on its placid breast,
And the marsh wren buildeth her swaying nest.

Here the rail birds rise in their short-winged flight,
'Neath its sheltering arms again to light,
Screened by its growth from the piercing eye
Of the fleet-winged hawk that soars on high.

By its wooded edge you can hear the hum
Of the ruffed grouse sounding his amorous drum,
While over its waves the swallows dart
With a grace surpassing the hand of art.

Beneath the water that laves the edge
The pickerel hides in his home of sedge,
On eager watch for the prey that glide
Along with the shimmering, limpid tide.

Away on the mountain's noble crest
The eagle builds his eyrie nest,
Where a forest giant stricken dead
Defiant rears his ghostlike head.

One cottage alone these shores doth grace,
Built by a hermit that loved the place;
A man who from boyhood had known the spell
Of each leafy nook and woodland dell;

Who sought, when the city's strife was o'er,
Repose and peace by its verdant shore,
And breathed his las' 'neath the sheltering wood,
With a name unknown for aught but good.

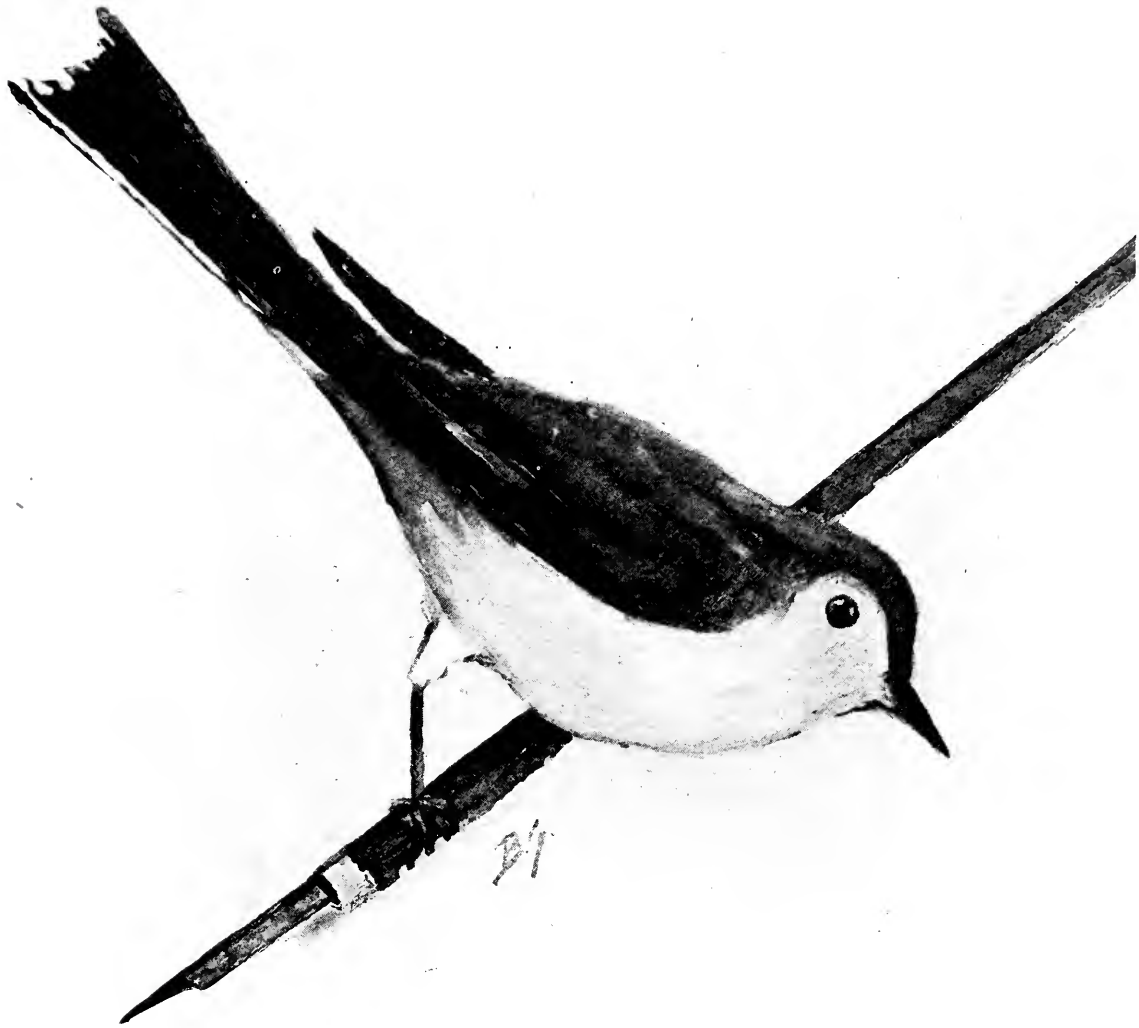
Oft by his sunlit, shadowy shore
I cleave the waves with the dripping oar;
Secure 'mid this scene of calm repose
From the world outside, with its wiles and woes.

"There's some talk of a lawyers' trust."
"Indeed?"
"Yes; and it is said they'll make a specialty of drawing up anti-trust bills for the legislatures."—Puck.

THE STORY OF TINY TIM.

BOYER GONZALES.

With flash of lightning, mutter of thunder, torrents of rain, and the wailing of a fierce Norther, Tiny Tim came. He was a bird, scarcely larger than a hummer, known to ornithologists as the cerulean warbler, or little bluish grey flycatcher. He had probably left his Northern home the previous fall, and, following his instinct, had become an aërial wanderer, drifting far into the tropics, like a bit of paper, on an air current. With returning spring there had come within his tiny breast the usual resistless impulse to visit his far away Northern home, and with admirable fortitude he had started on his long journey of 2,000 or 3,000 miles, guided by no one knows what. About one-third of the distance had been accomplished, when he had been overtaken by the terrific sub-tropical storm. Unable to battle against it, he was dashed into a showcase window of a gun store and fell insensible to the floor. He was picked up and tenderly cared for. In a few minutes he revived and soon became bright and lively again. He was so frail that the pressure of a finger and thumb would have made him a shapeless mite, yet we knew that since his advent into the world he had yearly flown more than 1,000 miles from his Northern home into the tropics and back, flying with faith and instincts that none can explain.



BREAKFAST TIME.

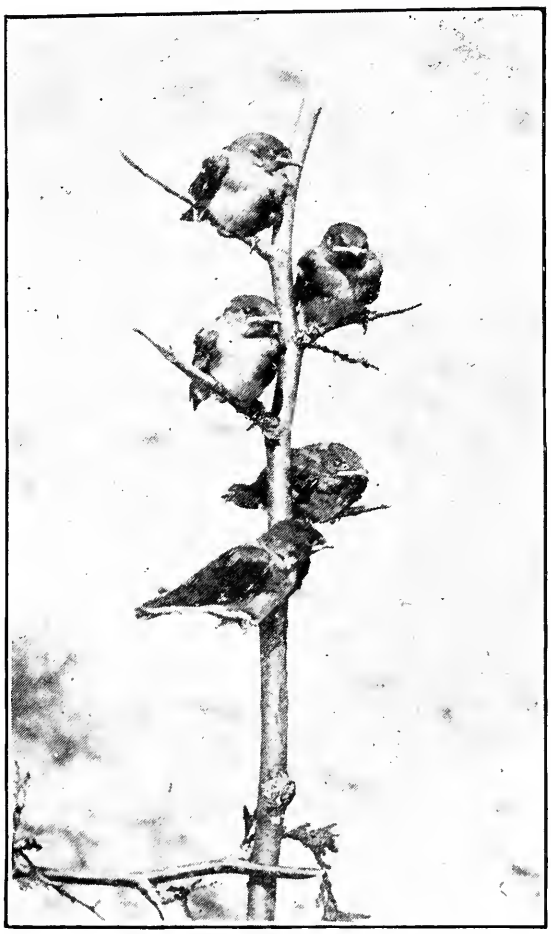
From the first he showed no fear of man, but would perch on our fingers, and preen himself and ruffle his feathers saucily. Small wonder that we grew attached to him. He had injured one of his wings, and although he made frantic efforts to catch flies he could not be quick enough. We took the cue, and thereafter everyone

became a flycatcher and the little fellow lived like a prince. He soon learned from what source his food came, and had a cunning fashion of hopping down on the end of a penholder, held in a pen rack, and waiting for someone to feed him. He had no favorites, but would sit contentedly on anyone's hand.

He greatly enjoyed sun baths. The mite would take his position in the center of a flood of sunshine and revel in it, pecking at unlucky flies, arranging his feathers, and stretching his wings. His enforced visit had been noted by the local papers, and many ladies and children called daily to see him and pay him homage. Perched on someone's fingers he would be taken to various windows, where flies were bumping their heads in vain efforts to get out. These flies were doomed. The little fellow never missed them.

As dusk approached, Tim would hop along his home, a great standing desk, jump up on the pen rack, from there to the gas jet, and then on to the bracket that supports the globe. There, hidden, with the exception of his tail, he would tuck his head under his wing, and bid the world goodnight. Morning found him bright and hungry, and his appetite surprised us. His hunger satisfied, he would then enjoy a bath, and dry himself in the sun, after which he assumed control of his desk. He was one of us.

For 10 days, Tiny Tim lived a happy life, winning great admiration and affection, and a bountiful supply of food, but he was destined to meet a tragic death. No cat or rat took part in the tragedy. Woe unto either that had been seen in the vicinity! One morning, while jumping at a fly, and not having the perfect use of one wing, Tim fell into a tin envelope holder and broke his neck. His death cast a gloom over the whole office.



AMATEUR PHOTO BY C. C. SPEIGHT.

ON THE WATCH-TOWER.

(Sand Swallows.)

WHITTIER'S GIRL ON A TROUT STREAM.

FRANK WHITE.

Maud Muller on a summer's day
Whipped a trout stream far away.
Deftly she cast with hook and fly,
But some way or other the trout were shy.

Now, Maud, she was a city lass,
And, of course, her rig was A first class;
Her tailor-made suit was up to date,
And her split bamboo of very light weight.

Her form was lithe and her face was fair,
But the slippery rocks made her fairly swear;
She whipped the stream for many a mile,
And then sat down to rest awhile.

A country boy, with a pin for a hook,
Came slowly wandering toward the brook.
He cut him a pole and bent his pin,
And then proceeded to wade right in.

Late that night, on her way to camp,
With both feet wet and hair all damp,
Maud mused like this, "Had I a pin,
There is no telling what there might have been."

She (in the midst of the quarrel).—Oh! I wish I were a man!

He.—So do I! You'd have me to fight, right now!—Puck.

IN THE COAST RANGE.

A. W. BITTING.

One day in the latter part of August, 1897, found me on board a Santa Fe train *en route* to join a friend in camp in the mountains of Southwestern Oregon, 40 miles from the coast. After leaving New Mexico the trip through Arizona and California was new to me. Occasionally I caught sight of small game from the car windows and the ever changing aspect of the country was of great interest. All too soon I reached Grant's Pass, Oregon, where I was cordially greeted by my friend A. Early next morning we set out, each mounted on a tough mountain pony, followed by 3 large burros carrying our camp outfit. We crossed beautiful Rogue river, a rushing mountain stream stocked with salmon and trout and said to hold in the crevices of the rocky bottom much glittering gold. Entering the foothills of the range, we followed the stage road 20 of the 50 miles to camp. Our way wound in and out of beautiful groves of tall pines, spruce and other evergreens, madrone, pepper, hazel and many varieties of trees and shrubs unfamiliar to me. Salmon, sarvis, red, black and blue huckleberries and other wild fruit were met with all along the way, and there was abundance of wild oats and grass for the horses. Large grey squirrels pretended to be scared at our intrusion and hurriedly scampered up the trees, and the tamer and more plentiful pine squirrels scolded us from the limbs of trees overhanging the road above us. While squirrels have furnished sport for innumerable hunters and filled many a camp kettle in time past, they are free from danger as far as I am concerned. Other game animals and birds may be just as innocent and deserving of protection, but I have the strongest attachment for squirrels and have ceased to find pleasure in destroying them.

By noon we came to a large branch of Rogue river, then at a low stage of water. While A. selected a resting place and cared for the animals, I adjusted my Bristol rod and took a stroll down the stream. Coming to a likely pool I dropped a brown hackle over its foaming surface and it had hardly touched the water when it was taken with a rush. I was out of practice and taken by surprise. I came near losing my first Coast range trout; but with the sweet singing of the reel, my old time skill came back. After a few wild lunges and struggles for freedom a one pound fighter came to land. Several smaller ones followed, out of the same pool, and although the sport was most alluring, I had enough for our dinner and rolled up my line. We soon had them in the pan, sizzling over a fire of pine cones.

To fry trout or any small fish properly, rub salt on the inside, roll in corn meal, or cracker dust, put in plenty of lard or equivalent and fry slowly over a slow fire. They will not burn then. The idea advanced by young campers that when cooked in much fat the fish absorb it and become greasy is incorrect.

The markings on these trout and on all I caught afterward in the streams of the Coast range consisted of dark, grayish, block like figures, instead of the bright red spots I had been so familiar with in New Mexico and Pennsylvania. The Coast range trout are gamy and in streams where not plentiful and that have been fished over they are very wild.

After a delicious dinner of trout, huckleberries and sugar, with condensed milk, thanks to the individual who first thought of condensing milk, we resumed our trip. The road gradually lead higher into the range. Huge rocks, covered with luxuriant mosses, ferns, vines and flowers, lined the road. Small streams of crystal water rushed headlong down the mountain sides, forming sparkling cascades in their course; and the banks were lined with flowering shrubbery and ferns of many kinds and sizes. Water ousels disported themselves in the spray under overhanging boulders and fallen trees, while humming birds and wild bees sucked sweets from the innumerable flowers. The scenery was so enchanting that it was with the greatest reluctance we could move along.

Toward evening we reached the town site of Selma. I say site, because there was more site than town. The latter consisted of one house, comprising postoffice, store and general information bureau for the neighborhood. The trail to camp there diverged from the stage road and a mile farther brought us to Mr. T's, where we put up for the night. The supper and breakfast set before us by Mrs. T. were most excellent.

Next morning we hit the trail early, following Deer creek to its junction with the Illinois river, and then down the valley of the latter stream. Not much valley along these mountain streams, as the mountains generally come down precipitously, close to the water's edge, and in following the streams, long detours are often necessary. These are the roughest and most tumbled of mountain ranges I ever saw. Deer, cougar and wildcat tracks were fre-

quent and plainly impressed in the dust on the trail, and we kept our eyes open for possible sight of the owners, but nothing larger than chipmunks or squirrels came to view. There are some bears in these mountains, but I did not see any. Occasionally the whir of a blue grouse or a pheasant broke the stillness of this quiet region. One of the former came to my gun and made part of our noonday meal.

Early in the evening we reached the crossing point of the Illinois river, the main branch of Rogue river, deep and shallow at intervals. The bed and banks are solid rock, worn smooth as glass and honeycombed in places. Huge rocks, solitary and in groups, loom along the banks of the river at frequent intervals. On the tops of many of these I often found well-like holes, containing several barrels of water. On others pine, spruce, shrubbery and vines were growing, making scenery grandly picturesque. This part of the country is seldom reached by tourists. A few prospectors and miners are its only visitors.

My friend gave a loud "hello," which brought from his cottage "Old George," who crossed the river in his boat. We loaded our traps into it and rowed to the other shore, holding one of the horses with a lariat, the other animals following the leader. I found George quite a character, and a "mine of information" regarding the vicinity. He had been miner, rancher, hunter and gardener, having lived in that location several decades. In that time he had reclaimed several acres of ground from boulders and timber, making himself a fine garden and orchard. By diverting water from a stream near, he was always sure of raising vegetables and fruit, thus creating a little paradise of a garden in this otherwise wild region. He invited us to spend the night with him and he sat before us a most excellent supper of deer's liver, biscuits, wild honey, fruit, etc. His log cabin was roomy and a model of neatness and good housekeeping. Several shelves were stocked with well thumbed editions of English and German standard authors, while late periodicals and papers covered the table. Fur rugs were on the floor and numerous antlers adorned the walls, serving as racks for guns, spears and other implements of the chase. George gave us a history of his eventful life in these mountains and I became a willing listener to his truthful tales of adventure with bears, cougars, and other animals of the vicinity. His most exciting and dangerous scraps, however, had been with Mexican and other outlaws.

The next morning we reached A's camp. Carl V., a bright young German, A's mining partner, and "Sooner," his hunting dog, were the sole occupants. The camp was on a bench on the side of one of the tallest peaks, half a mile from Rancherer creek. Pine, spruce, and madrone trees were scattered singly and in groups and the ground was covered with short grass, thus giving the place a park-like appearance. A strong spring of ice-cold water gushed from among the rocks. The stream leading from the spring was lined with wild honeysuckle and numerous other fragrant flowering plants and the air was delicious with their perfume and the exhalations from evergreen. There was a large flat rock on the top of the peak high above us, and during my visit I spent many a pleasant hour there watching, with a strong field glass, the sails of vessels on the Pacific. To the East and Northeast the snow-capped peaks of the Cascades arose, while to the Southeast the Siskiyous and grand old Shasta loomed. In all directions were mountains, as far as the eye could see.

My companions were quartered in a tent, and after I had set up mine I spent several days in making a bedstead, table, chairs, etc. When they were completed we had a model camp. I then made a visit to the mine and was so impressed with the financial outlook that I arranged for an interest in the property, a quartz prospect on top of a high butte, half a mile from camp. A. and V. worked the mine, while Sooner and I took charge of the camp, keeping house and furnishing the table with choice venison, grouse, pheasants, wild ringneck pigeons and quails. Our board was varied by fruit from George's orchard, and wild fruit from the vicinity of camp, huckleberries being especially plentiful and of fine flavor. They were most delicious with sugar and milk or made into pies and puddings. Salmon and trout were to be had for the taking. Being 50 miles from the nearest butcher shop we depended on deer for our fresh meat and I could always get a blacktail in a day's hunt.

I never shot at deer unless we were in need of meat and I therefore had frequent opportunities of studying their habits. One morning while sitting under a large pine tree, watching the opposite mountain side for deer, I turned my head and not more than 15 feet from me stood an old doe, intently looking me over. She stood but a moment longer and one jump into the brush hid her from view. I can still see those large innocent eyes staring at me and I feel glad that I had no opportunity to shoot her.

In the spring and fall salmon, though plentiful, would not take the fly or bait. When we wanted one we would either get it with a rifle or with a long pole with a hook fastened to the end. This may not have been sportsmanlike, but it required some skill. When standing on a slippery

rock, feeling around in a pool for a fish and when found and hooked fast to him it was often a question whether I would get the fish out or *vice versa*. The salmon weighed 5 to 30 pounds. Salmon trout would take grasshoppers, and mountain trout both hoppers and the fly, preferring the former. During June and July lamprey eels ascended the river to spawn and thousands of them could be seen clinging to the rocks and slowly working their way over the falls in the river.

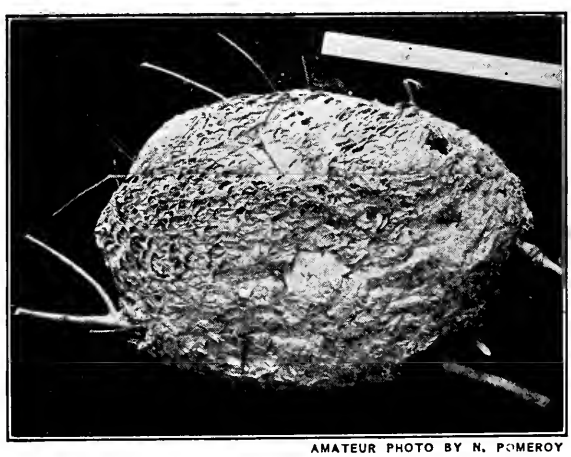
A quarter of a century ago this region was a busy mining camp, many of the creeks having been rich in placer gold; but they have been worked out and the mining now is confined mostly to quartz and copper mining, with some placering along the Illinois river.

There were a few features of this camp life that were not pleasant. Poison oak, rattlesnakes, yellow jackets and innumerable bugs and insects had no charms. Rattlers were plentiful, and while not seemingly vicious, were often too close to be agreeable. In going along the trail I frequently found them coiled up, and on several occasions I had to make a swift hop, skip and jump to clear them. With the poison oak I was less fortunate. I got a dose of that, causing me intense suffering for more than a month. Applications of carbolic acid and glycerine, as strong as the patient can stand it, are probably as effective as any remedy. One should never go into that country without a supply, as well as whiskey for possible snake bites. Yellow jackets were so plentiful that at times it was almost impossible to eat a meal without some of them passing in, and there were frequent occasions on which one's early Sunday-school training came into requisition. A piece of meat hung up would be eaten by yellow jackets in a short time. I killed a large rattlesnake and laid it on a log, intending to take a camera shot at it later; but a few hours afterward there remained only the skeleton.

As the time of my friends was constantly required at the mine, Sooner and I made frequent jaunts into the surrounding mountains, often going long distances, and frequently passing the night in some deserted cabin or rolled up in a blanket under a pine or spruce. I always felt safe from prowling "varmints," as my faithful dog was ever on the alert.

I spent the greater part of a year in this camp and after bidding my friends a reluctant adieu, I took the stage at Selma for Crescent City, California. The route was through pine and redwood forests, rhododendron patches and mountain scenery of surpassing loveliness. I stopped several days at Smith's river, a large stream full of gamy trout. There I cast my last fly. I found the fish, being nearer the coast, larger and gamier than any I had previously taken.

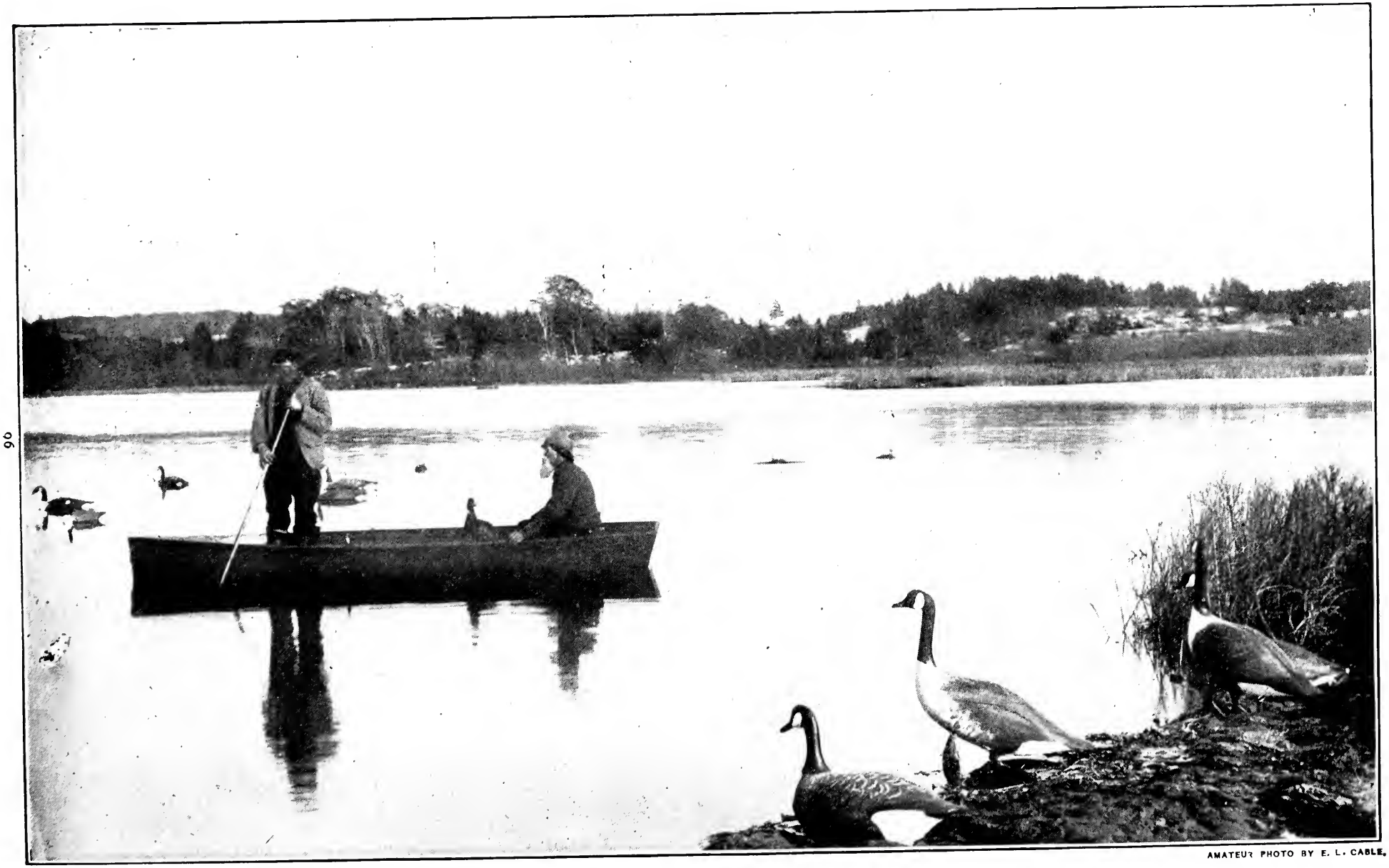
From Crescent City to Frisco I spent most of the time on the deck of the little steamer, watching the blowings of the numerous whales and the skimming hither and thither of the gulls, ducks, snipe, etc. I know of no part of the country where a summer or winter can be spent more agreeably than in the coast mountains of Oregon.



AMATEUR PHOTO BY N. POMEROY JR.

HOME OF THE WHITE FACED HORNET.

Circumference 3 feet 7 inches, one way; 4 feet 4 inches the other



AMATEUR PHOTO BY E. L. CABLE.

PUTTING OUT THE DECOYS.

THE BIRD OF SOLITUDE.

EDWIN I. HAINES.

On the summit of Bald Top mountain, of the Catskill range, one evening in July, 1895, I became acquainted with the grey cheeked thrush. I had been collecting specimens all day on this peak, and as the sun was setting I began descending the mountain. Presently from far above me, somewhere in the heart of the balsam forests, I heard the rich organ-like notes of "a bird in the solitude singing." I stopped and listened, for the song was unfamiliar, and for a wild bird's song, one of the most beautiful I had ever heard. It was the song of some species of thrush, I knew, but the singer was not a wood, Wilson's, olive backed or hermit. Those songs I was familiar with. What one, then, could it be? This question I settled next day, for by patient waiting I at last secured one of these beautiful songsters, and when I reached home in the fall it was identified as the grey cheeked thrush.

The 2 succeeding summers I made careful search of other mountain peaks in Delaware county for evidence of this bird, but obtained none. It was not until I visited Slide mountain that I again met with it. While collecting there on the 10th of June, 1898, I shot a thrush which I supposed was an olive backed, but on close examination I found it was a grey cheeked. Wishing to make a careful study of this little known species, I visited the Slide again on the 12th and camped on its summit until the 18th. During that time I had ample opportunity to study the bird's habits and listen to its song.

Slide mountain stands at the head of Big Indian valley in the heart of the Catskills of Ulster county, and rises 4,220 feet above sea level. It is a lonely, desolate peak, surrounded by broad, open valleys. Its rocky summit is covered by a sparse growth of stunted pines and balsams, but its bird and animal life, being strictly Northern, are specially interesting. Grey cheeked thrushes are common on this mountain, but are so shy it is difficult to get near them. You can never get to them, but if you are patient they will sometimes come to you. Often I have crept on hands and knees toward the tree whence the song came, but when I reached it, the song would come from somewhere else. All my toil had been in vain. During my entire stay on the mountain I obtained but 4 specimens. To get these I sat hours in one spot, cramped, half broiled by the sun, and nearly eaten alive by black gnats and other pests that swarmed there. This bird, hitherto the only member of the thrush family supposed to summer beyond the limits of the United States, has only been found in summer on the 2 peaks mentioned, Bald Top mountain, 3,800 feet high, Delaware county, N. Y., and Slide mountain, 4,220 feet high, Ulster county, N. Y. These 2 mountains are similarly situated but lie over 50 miles apart. These 2 places must afford conditions more favorable as summer homes for this thrush than other places.

Every kind of bird seems to voice some phase of nature. The bobolink sings for the sunny meadow, the oriole for the shady treetop, the bluebird for the blue sky, the towhee for the blackberry brambles, the winter wren for the roaring brooks. The grey cheeked thrush sings for the lonely mountain peaks, and chants his *Te Deums* for sunrise and sunset. Our camp on the mountain summit was often serenaded by this beautiful songster, sometimes at the break of day, but oftenest at dusk. The last evening on the mountain, while my assistant was cooking supper, and packing up for the morrow's departure, I strolled toward Lookout rock, to see the sunset and listen to the grey-cheek's vespers. As I went along, watching the red light slanting across the neighboring mountains, and the dark shadows creeping up from the valleys, I was thrilled with his song, but not till I had reached the rock overlooking the valley, and the dark line of wooded mountains beyond, not till the summer sun dropped behind the dark peaks, and the rosy afterglow of the sunset was turning to pale serene light, did the song of the grey-cheek most deeply stir me with its richness and beauty. Then from the dense balsam thickets it came to me, filling the cool evening air with its tremulous, pathetic yearning, gathering up into short waves of song the silent music of the sunset—God's message of peace.

"Papa, what is a marriage in high life?"
"Two vacant hearts entirely surrounded by cash."—Life.

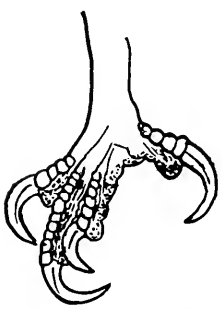
BILLS AND FEET OF BIRDS.

GEO. C. EMBODY.

Why is the bill of a hawk hooked? Why is the foot of a duck webbed? Is it because the foot of a duck is webbed that it swims about in search of food; or is it because the bird swims about that its foot is webbed? The latter is the likely case, for the former is antagonistic to the theory presented by Darwin. Again, the *Gallinules* of certain islands in Southern seas can not fly. In those islands, where food is abundant and no enemy is known, the ducks have no further use for their wings; and in the course of many centuries, through disuse the wings have become so small that the power of flight is lost.

The external features of the hawk (figs. 1-2), present admirable examples of adaptation. He is ever on the alert for some unsuspecting field mouse, squirrel, frog, chicken or even snake. This prey must first be sighted from a distance, so we find hawks possessing eyes far superior to those of other creatures. The feet have large, not too long, toes, 4 in number, which support long, sharp, powerful claws for holding the struggling victim after the well aimed dash has been made. One blow from the huge hooked bill makes the sufferer forever insensible to pain. The hooked bill was made for another purpose also. Since the hawk's food consists largely of small rodents which can not be swallowed whole, it is necessary that he possess an instrument for tearing and pulling away the fur and flesh. To be sure, the bird is generally too hungry to separate the fur from the meat and thus swallows both with apparently the same relish, the fur being afterward cast out. What instruments could be more economical than the powerful clawed foot for striking and grasping and the hooked bill for tearing?

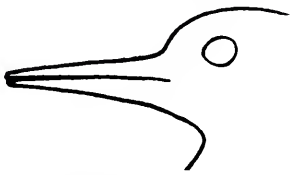
1. Bill of the Hawk.



2. Foot of the Hawk.

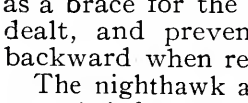
3. Bill of the Owl

The sharp, chisel-shaped bill is an instrument made purposely for the use of the woodpecker in cutting his home out of a partially decayed tree and digging out the vermin which infest the trees (fig. 4). The bird goes at his task in a business-like way, hammering first on one side and then on the other, causing the chips to fly in every direction. When the insect is reached the sharply pointed, barbed tongue, backed by a pair of well developed muscles, which encircle the skull, darts out, impaling the unfortunate insect. The 4 toes (fig. 5) 2 in front and 2 behind, are well placed for clinging to the bark, be it smooth or rough; and the stiff, pointed feathers of the tail serve as a brace for the heavy blows which are dealt, and prevent the bird from falling backward when resting.



4. Bill of the Woodpecker.

The nighthawk and the hummingbird secure their food in a different way, the former catching insects with wide open mouth while continually on the wing, the latter suspended on wings before a flower, picking out the minute flies and ants which are attracted by the nectar and occasionally helping himself to the sweet liquid. In the nighthawk we find a short bill at the extremity of a mouth (fig. 7) so wide that no insect could hope to escape, while many might be taken at one time. Very different is the bill of the hummingbird (fig. 8). Long and slender, it will reach an insect at the extreme end of the largest and longest blossom. This long, slender bill has still another use, that of feeding the young. Most young birds could be fed with short bills as well as with long ones, but not so with young hummingbirds. The food must be regurgitated, during which operation the bill of the parent must be thrust far down the little one's throat, where it remains 4 or 5 seconds without causing the least unpleasantness to the young bird. These 2 species have no spe-



5. Foot of Woodpecker.

6. Bill of the Flycatcher.

7. Bill of the Nighthawk.

8. Bill of the Hummingbird.

cial use for large, strong, well-developed feet, with sharp nails, so we find them possessing mere apologies for feet, which are barely able to support the weight of the body while the individual is resting (fig. 9). Instead of sitting up straight with legs extended, both species sit with their bodies close to, if not actually resting on the limb, the nighthawk always lengthwise.

9. Foot of the Nighthawk.

Everyone is acquainted with a few species of the family *Fringillidæ*, sparrows, finches, grosbeaks, etc. The same general type of bill exists in every species of this, the largest family of birds, namely, the short, stubby bill, operated by well-developed muscles and capable of comparatively great crushing power for cracking seeds and other hard substances (figs. 10, 11, 12). In autumn sparrows and finches feed almost exclusively on the seeds of obnoxious weeds along fences and in the fields. As a rule the nutritious material is covered by a shell varying in hardness. A few species of other families, as the horned larks, blackbirds and meadow larks, eat the seeds without cracking them. They have longer bills, which are better adapted for other purposes; but the sparrow must crack his seed and eat only the choicest morsel within. Thus he possesses the short, stout bill most useful to his manner of eating. As we look from sparrows to finches and from finches to grosbeaks we find this type much exaggerated, reaching its culminating point in the grosbeaks, where it is nearly as thick at its base as is the skull. Grosbeaks are often seen crushing frozen buds in winter, to get at some worm or larva form within. At other times they may be seen among the conifers extracting the hard seeds from the cones. Our resident grosbeaks during spring and summer seem to prefer certain hard-shelled beetles for a diet. In all of these cases the short, stout, hard bill renders valuable service. In one species of this family, the crossbill, we find a special form of bill. This irregular wanderer, disobeying all rules of migration, whose reappearance can not be foretold by the most learned philosophic ornithologists, possesses a bill admirably adapted for extracting seeds from the cones of the pine. (fig. 13.) In late winter when the food supply of the birds has been considerably diminished, it is not a rare sight in certain localities to behold the American and white winged crossbills shearing off the ice-coated buds of the maple and elm trees, perhaps in search of small worms, since the most tender parts of the buds are strewn about on the snow beneath.

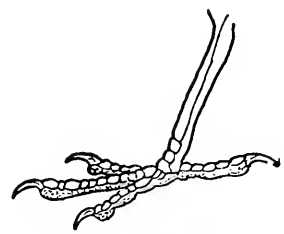
10. Bill of the Chipping Sparrow.

11. Bill of the Grosbeak.

12. Bill of the Purple Finch.

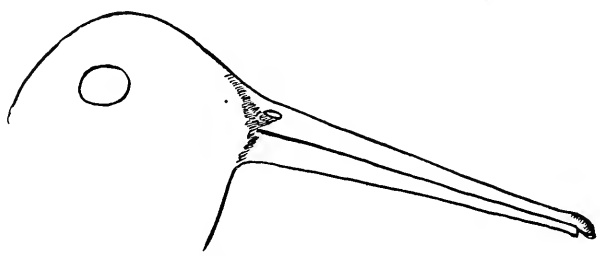
13 Bill of the Crossbill.

As a rule the bills of birds which search damp meadows, lawns and sometimes swamps for worms, are longer than those of the seed eaters, for a certain amount of probing must be done before the food is secured. They must also do much scratching to uncover certain choice bits. For this reason nature has provided for them strong legs and feet with rather long, sharp claws. (Fig. 14.) This type is characteristic also of the perching birds (order *Passeres*), which spend the greater part of their existence among shrubs and trees.



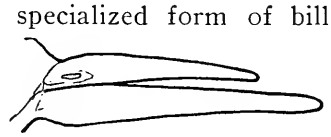
14. Characteristic foot of the Passeres.

A highly specialized form of bill (Fig. 15), is possessed by the American woodcock (*Philohela minor*) and Wilson's snipe (*Gallinago delicata*), the former inhabiting swamps and alder thickets, the latter, damp meadows. The bill of the woodcock is slender and nearly 3 inches long. That of Wilson's snipe is about ½ inch shorter. The structure of the bill is peculiar in that it is flexible and that the tip of its upper mandible can be moved independently of the lower one, enabling it to act as a finger and thus assist the bird in drawing its food from the ground.



15. Bill of the Woodcock.

Another highly specialized form of bill is that of the skimmer. On the Atlantic coast this family is represented by but one species, inhabiting the warmer regions. The skimmers are unique in their manner of feeding as well as in the form of their bills. In shape the bill is similar to a long



16. Bill of the Skimmer.

blade, the lower mandible being much longer than the upper (fig. 16). Of their manner of feeding one writer says, "Opening the mouth, the bladelike lower mandible is dropped just beneath the surface of the water; then, flying rapidly, they may be said literally to 'plow the main' in search of small aquatic animals."

LONGING FOR THE COUNTRY.

C. M. DENISON.

As the city streets grow hotter, and the sun comes beating down,
And the rich and idle fellows have about all left the town,
It just seems to me I'd like to hie myself to some cool spot,
Where the business cares and worries of this life could be forgot;
There to rest this poor old body, just to loaf among the trees,
A-listening to the brook's soft tune, and the humming of the bees;
Just to live in some old farm-house, where they build the porches wide,
And the fragrant, dewy roses are a-blooming just outside;
Where there's miles of pleasant landscape built to please the weary eye
And a daisy of a trout brook ripples through the meadow nigh;
Where there's nothing special doing, and you nap beneath the trees,
Just a-listening to the music made by every passing breeze;
Where you go to bed at evening, and you sleep the whole night long,
And you wake up in the morning, feeling mighty good and strong;
And you eat till nearly busted, bread and butter, pies, and cake,
'Cause the victuals taste so nearly like those mother used to make.

AMATEUR PHOTO BY A. C. DICKINSON.

TRYING TO LOOK PLEASANT.

THE DEPARTURE OF THE BIRDS.

R. R. NICHOLSON.

Much has been written about the arrival of the birds in spring, but little of their departure in fall. This is but natural, for their joyous return from the South is far more interesting and significant than their departure in the autumn.

In Southwestern Ontario the nesting season of most birds is over by the time the hot weather begins. Many then go farther North, while others resort to the neighborhood of the lakes and rivers, where food is abundant. There they remain till moulting is over, and they have gained new, strong feathers for their long Southward flight.

Nearly all birds wear their most attractive plumage in spring, for the wooing and winning of their mates. They are conspicuous at that season because the trees do not yet have leaves to conceal the birds as they flit among the branches. By autumn the males have shed their brilliant nuptial feathers, have assumed modest traveling dresses of sober colors, and often male and female, old and young, are scarcely distinguishable. A few birds, however, such as the mallard and the bittern, always wear their richest and brightest colors in the fall. The male mallard moults while his mate is engaged in incubation, and by October he is clothed in all his splendor.

Moulting is a trying ordeal, which most of our birds undergo during the summer or autumn. A complete moult, which includes the shedding of the large quill feathers, takes place only once a year, but some species, like the ptarmigan, undergo a partial moult twice, and even thrice in 12 months. In spring the ptarmigan sports a variegated plumage of black, brown and white, but when nesting is over it changes its wedding apparel for a quiet suit of grey. When winter approaches, it comes forth arrayed in pure white, with feather snowshoes.

Some birds change color and appear to have moulted, without shedding a feather. This is due in some species to the transformation of the pigment of the feathers. The plumage of the redpolls does not actually change color, but in the spring the wide grey margins of the crown and breast feathers break off and reveal the glowing crimson, concealed before.

The moulting season varies in length, depending on the species. Ducks and geese are said to require but 4 weeks, while our song birds are slower. Birds of prey take the whole year to shed their quil feathers. As a rule, the large wing feathers are shed in pairs, one at a time from each wing, and thus the flight of the bird is not impaired. Water fowl drop all the quill feathers at one time and the birds, as far as flight is concerned, become entirely helpless. When moulting begins, however, they are always careful not to wander far from the neighborhood of water, in order that when danger approaches they may flee by swimming.

In the fall, birds are generally silent save for their call notes. Sometimes, however, in autumn a lonely bachelor croons a half-forgotten love song, or perhaps some young males indulge in tentative warbles. Only the other morning I was delighted to hear, in the heart of the city, a little house wren singing in a low, far-away voice, as it threaded its way through the woodpile; while in a neighboring garden some migrant white-throats were whistling in sweet, though defective numbers. Often rare visitors from distant Northlands abide in the garden a few days to rest, before resuming their Southern pilgrimage, but few are aware of their presence.

Herr Gätke, who for over 50 years studied the flight of birds on the island of Heligoland, has cast much light on the subject of their migrations. It was long believed that the old and experienced birds guided the young on their journey to the South at the approach of winter, but Herr Gätke was the first to call attention to the fact that the young birds are the first to leave in the autumn, the old birds following some weeks later. The young birds, however, are generally preceded by mateless males. These old bachelors, distinguished by their nuptial plumage, which, though faded and worn, they still retained, Herr Gätke found were the first to hasten South. In spring the order of the return of the birds is the reverse of the order of their departure in the fall. First come the old males in their finest plumage, then old females, followed by more females and young of both sexes, then young alone, cripples last.

The distances traveled by migrating birds vary from a few hundred miles to about 7,000. Most of our Canadian birds spend the winter in Mexico and the Gulf States, though a great many, such as sparrows, robins and meadow larks, remain in the country from Ohio to Louisiana. The cedar swamps of the Alleghany mountains, especially, are favorite resorts for the robins. The turnstone is a great traveler, nesting in Greenland and wintering in South America. The golden plover, likewise, nests in the Barren Lands above the Arctic Circle

and passes the winter in the West Indies. European birds migrate to Africa, the English swallows going to Natal.

Though most birds migrate from North to South, in certain countries they go from East to West. Richard's pipit nests on the steppes of Eastern Asia, but winters in France and Spain. The Royston crows, which breed in Siberia, travel in winter as far West as England, while the little bunting nests in the far East of Russia and spends the winter in France.

The first birds to depart in the fall are those whose means of sustenance are first cut off. Swallows live on insects, which they catch on the wing, consequently when harvest is over, evenings are cool and insects fewer, the swallows begin to think of their winter homes and toward the end of August take their flight.

One would expect the family of flycatchers to leave about the same time as the swallows, but they do not go till a few weeks later, for, when their supply of insects is exhausted, they turn to berries and other small fruits which they eat with relish. There are 5 common species in Ontario, the kingbird, wood pewee, phoebe, least and great-crested flycatchers. All are orchard birds. They leave for the South about the middle of September, the great-crested flycatchers going as far as Mexico.

The red-eyed vireo, having faithfully fulfilled its long ministry of song, departs for the Gulf States early in September, just when the Baltimore oriole visits the orchard on its way to the South. The bobolink leaves also in September. He is one of our most charming birds, coming from the balmy South early in May and flooding the meadows with his jingling notes. There is an ineffable charm in his festive manner, his fantastic dress, and his joyous song. He is the favorite of the poets. In autumn the males change their handsome summer clothes for modest traveling suits of yellowish brown, and on a calm evening they set out for the Southern rice fields, where they revel in gluttony during the winter. There they are known as reed birds or rice birds. They become very fat and, sad to say, are shot in large numbers as game.

About the middle of September that winged gem, the ruby-throated humming bird, starts for Central America, and is soon followed by all the warblers. How wonderful is the endurance that enables these little birds to sustain such long journeys in spring and fall. Late in September thrushes, catbirds, wrens, red-headed woodpeckers, flickers and mourning doves leave their summer haunts and migrate to their winter quarters. As October approaches, the vesper and song sparrows bid adieu. It is pathetic to hear a lone song sparrow striving then to sing. Its voice cracks when it reaches the trill of its song. As the month advances great flocks of bronze grackles, red-winged and rusty blackbirds and cowbirds darken the sky on their Southward flight. Flocks of wild geese and ducks then fly South and often the "honk, honk" of the wise old gander can be heard at night as he leads his wedge-shaped flocks through the sky. The last birds to leave are the robins, purple finches, bluebirds, meadow larks and goldfinches, though often many of the larks and finches remain during the winter.

A little Cambridge girl was discovered whispering in school, and the teacher asked:

"What were you saying to the girl next to you when I caught you whispering?"

The little culprit hung her head, and then replied:

"I was only telling her how nice you looked in your new dress."

"Well, that—yes—I know—but we must—the class in spelling will please stand up."—Christian Register.

WITH THE SHORE BIRDS.

C. O. ZERRALIN.

One morning near the end of August my friend R. and I started for the beach. A gentle Southwest wind was blowing and we felt assured that sport would not be lacking. After a brisk walk of about a mile and a half over the cool sand in the glorious early morning air, we reached our box. The decoys were soon set out, and then we sat watching the red sun rise over the dashing surf.

Suddenly we were brought to life again by a plaintive "phee-in-wee."

"Beetle heads," whispered R. and we answered in seductive tones. Down the beach they came, 4 blackbreasts, straight for our decoys. "Crack, crack, crack, bang!" and 3 plovers lay on the sand.

It was not long until a pretty bunch of redbreasts visited us, and departed minus 5 of their number. The flight had really commenced, and large bunches of peep were circling up and down the beach. Now and then we heard shots down the flats, but we had the first crack at the birds, thanks to the wind and our lucky draw of box number one.

We had scarcely retrieved the redbreasts, when a pair of winter yellowlegs came in. Much to my disgust I missed with my first barrel, but scored with my left. R. nailed his bird, and our bag was beginning to look formidable. Then came a lull, but not for long. We heard the inimitable whistle of a big willet. He came in most unsuspiciously and a minute later he lay under a covering of cool seaweed, with his unfortunate cousins.

A pair of gaudy "chickens," or turnstones, then gave me a chance to get the laugh on R. He missed his bird with both barrels and I nearly gave him heart failure, and myself also, by making a neat double. He, however, made up by killing 4 stilt out of 6, while I was cursing over a swelled shell in the breech of my gun. The stilt, by the way, used to be rare in Massachusetts, but during the last year they have been shot in large numbers. The afternoon before, 3 of us knocked 18 out of one flock.

Suddenly R. pointed up the beach, and we saw a large flock of summer yellowlegs heading for our decoys. We poured 4 charges into the well bunched birds, and gathered up 9 of the fat little waders.

The tide was then high, so we had to pull up the decoys and wait for the ebb. It was growing hot and we stripped to our rowing shirts, and took a nap. We were awaked by the mellow "phew-phew-phew" of a winter yellowleg, and to our disgust found that the tide was already well on the ebb. Decoys were out in a jiffy, and we commenced to whistle for the lonely winter. At last he succumbed to our entreaties and gave me an exquisite chance to miss him with both barrels. I redeemed myself by doubling a pair of beetleheads a moment later.

As it was growing dusk and the flight had nearly ceased, and as a certain gnawing feeling in our stomachs was increasing, we gathered up our bag, and started home.

"I'll bet this is the best bag to-day," said R., when he handed the birds over to me, having carried them half the way. He was right for with the pair of grass birds we got on the way home our 30 big birds were as many as all the other shooters together had taken.

AMATEUR PHOTO BY C. C. SPEIGHT.

PHOEBE BIRD.

AMATEUR PHOTO BY L. D. LINDSLEY.

PROBABLY YOUNG MEXICAN WOOD RAT. *NEOTOMA MEXICANA.*
Made with Premo Camera

AMATEUR PHOTO BY W. R. SMITH.

SCOLDING.
Made with Korona Camera.

BIRDS AT BAILEY'S.

L. S. KEYSER.

Bailey's is one of the many summer resorts in the South Platte canyon, Colorado, and may be reached by a railway journey of 55 miles from Denver. Nestled in an open valley, the village is one of the pleasantest places in the Rocky mountains. I was pleased to find this valley the summer home of many birds, as well as an attractive resort for human pleasure seekers.

In the Rockies you must not expect to find many of the birds common in the East. While following a ravine that led from the village up into the mountains, my ear was greeted by a song that sounded familiar, but that I felt sure must come from the throat of a bird that was new to me. So it proved, for my field glass soon brought into view a gorgeously clad bird, whose back, wings and tail were black; head, scarlet or crimson, the same color running down over the chest in diluted tints; rest of plumage, bright yellow, gleaming almost like amber in the sunshine.

Observers in the East are familiar with a little bird whose suit of scarlet, trimmed with black wings and tail, make him a conspicuous object in the woods; also with another beautiful bird which wears a suit of rosy red or vermilion throughout. These are the scarlet and summer tanagers. You will not find them in Colorado, but in their stead you will make acquaintance with the brilliant bird just described. He is called the Louisiana tanager, and for beauty of plumage has few, if any, rivals in the Rocky mountains.

However, his song, as far as I am able to judge, is just like those of his Eastern kinsmen, a kind of drawling tune that is pleasing enough, but can not be called brilliant. Although I had been rambling several weeks up and down the mountains from the foothills to the crests of some of the highest peaks, I saw my first Louisiana tanagers at Bailey's. At daybreak my half-waking dreams were pleasantly broken by the matins of this bird, proving him an early riser. He is as fond of a pine forest on the mountain side as his Eastern relatives are of a woodland of oak in their own longitude. His mate, who is not so brilliantly clad as her lord, saddles her nest on the horizontal branch of a pine tree, usually some distance out toward the end. Lovers of the mountains, these birds rear their broods between 7,000 and 10,000 feet above sea level, avoiding the plains during the breeding season, although seen there frequently in the periods of migration.

Another interesting bird seen in the hollow above Bailey's was the pygmy nuthatch, which you will not find in the Eastern or Middle States, where you know only the white breasted nuthatch as a resident and the red breasted nuthatch as a migrant. Three or 4 of these pygmies were flitting about among the pines, clambering up and down the branches and boles in true nuthatch fashion, now head upward and now the reverse. They seem shy and nervous little creatures, always moving about among the twigs or glancing from tree to tree, so that they were difficult to watch with the field glass. All their movements were accompanied by a half musical little chirping, which was sometimes prolonged almost into a song when the birds became especially excited over my presence, as they did when I followed them about and ogled them with my glass. As their name signifies, the pygmies are tiny birds, scarcely more than half as large as the white breasted nuthatches, and spend the breeding season exclusively among the mountains, ranging 5,000 to 10,000 feet above sea level.

Among the Rockies you look in vain for the common blue jay, but in its stead you find the long crested jay, so called because of the long, black crest that adorns his shapely head. He is rather a handsome fellow, with his coat of navy blue. He was met with almost everywhere among the mountains from the foothills to timber line, and is especially fond of the steep and bushy acclivities, the pine forests, and the bushy valleys, where he hides his nest in such a manner that, though large, it is extremely difficult to find.

In the ravine, of which mention has been made, there was a family of these birds, the parents feeding their young, which a week before had grown too large to remain in the nest. A great variety of sounds came from the throats of the adult birds. They uttered a harsh, grating call which seemed meant as a warning to the youngsters to be on their guard. When I pursued them, one of the birds, perhaps the male, played a little tune on his trombone, which might be represented as follows: "Ka-ka-ka, k-wuit, k-wuit, k-wuit," the syllable "ka" repeated rapidly, while the "k-wuit" was pronounced more deliberately, with a kind of guttural and gurgling intonation. This song, if song it may be called, bears some resemblance to the common blue jay's liquid outburst. It was succeeded by a grating call that sounded like a file drawn over the edge of sheet-iron. Then the birds chattered in a low,

affectionate way that seemed to indicate they were having a little conference just among themselves.

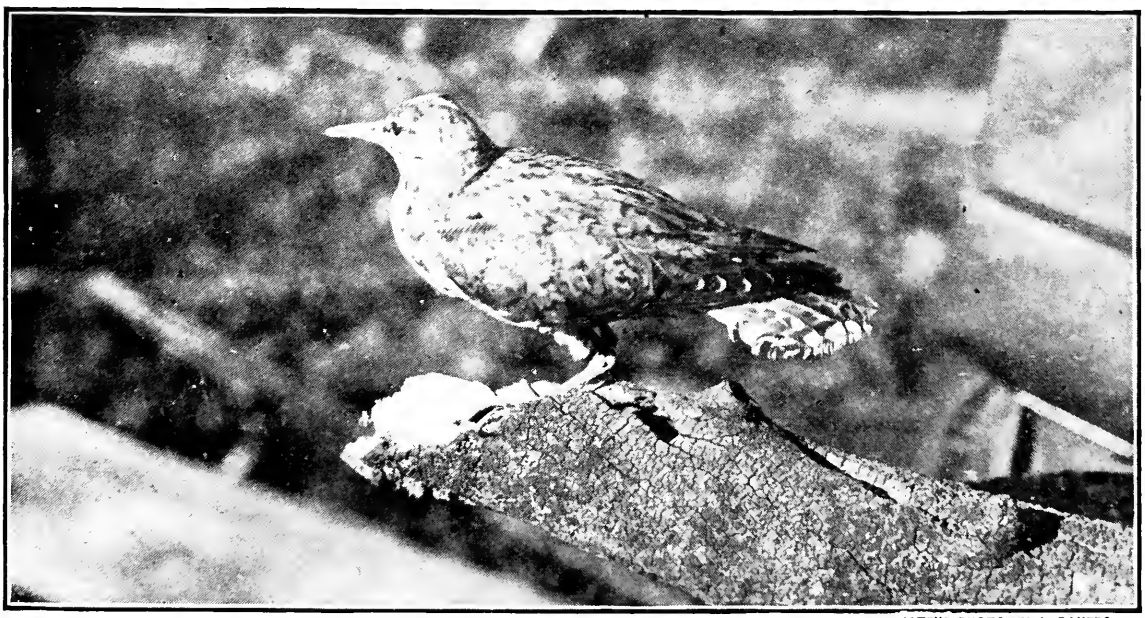
As I still pursued them, one of the old birds cried "Quick! quick! quick!" as fast as he could fling the syllable from his tongue, the meaning of the outburst being "Hurry away! hurry, hurry!" But that was not all; one of the birds uttered another call, which I translated, "Go ware! go ware!" delivered in so raucous a tone that it might have frightened one who was not used to uncanny sounds in lonely places. Presently the whole company disappeared, not caring for human society any longer, but I could still hear them filing their saws far up in the mountain side.

While there were many birds at the lower end of the ravine where it opened into the valley, their numbers grew less the farther I climbed into the mountains. In all my rambling I found this the case. Comparatively few birds care for the solitudes; at least, their favorite haunts are in the neighborhood of babbling streams, where they can drink and bathe without making too long a journey. Far up the hollows from Bailey's a few Western robins, gray headed juncos and mountain chickadees were seen, and their voices seemed sad in those solitudes, whereas down in the valley their songs sounded rollicksome as they mingled with the roar of the mountain stream.

Other birds seen in this neighborhood were pine siskins, which are the same as the siskins of the East, only they do not go so far North to breed, finding the climate they want in the mountains; Audubon's warblers, almost like the myrtle warblers in Eastern States; mountain bluebirds, whose breasts are blue instead of reddish brown; Say's phœbes, distinctly a Western species; spotted sandpipers, with which Easterners are familiar; Western nighthawks, which zigzag overhead and "boom" now and then, just as their Eastern cousins do; and red shafted flickers, taking the place of the well known golden winged flicker of the East.

The sweetest and best bird of all has been reserved to be mentioned last. It was at Bailey's that my long and wearisome search for the nest of the white crowned sparrow was rewarded. In many a mountain valley, from an altitude of 7,000 feet to the foot of the loftiest peaks far above timber line, I had found the white-crowns, singing their dulcet tunes, and had sought in vain for their nests, probably because it was a little too early in the season.

One evening at Bailey's, as I was walking along the bank of the noisy creek, a male white-crown was singing blithely in the bushes, and I stopped to listen to his vesper hymn. Presently a female scuttled to my side of the stream, chirped uneasily a moment, and then flitted to a bush-clump, into which she slipped. The little lady fluttered away as I peeped into the bush, and there was the pretty nest, containing 4 white eggs dappled with brown, looking like pearls in a tiny casket. All the while the male trilled his liveliest airs to beguile my attention. His mate chirped anxiously, and so I hurried away to set her mind at rest, glad I had found a white-crown's nest, and just as glad to leave it undisturbed.



AMATEUR PHOTO BY J. BAUERS.

SPOTTED SANDPIPER, *ACTITIS MACULARIA.*

Can Any Reader of RECREATION Identify it?

MY FIRST LESSON IN TRAPPING.

KATE E. NORCROSS.

I could not have been over 9 years old when I received my first lesson in trapping. Dave, our hired man, promised to make me a box trap in which I could catch quails and other birds. I was greatly delighted and could think and talk of nothing else until it was completed.

One Saturday afternoon the trap was finished and Dave carried it to a plum thicket 400 yards from the house. There he scraped away the snow and built a pen of fence rails, in which he put the trap. He showed me how to set it and pointed out the little slide door on top through which I was to take the captured birds, one by one. After baiting the trap with corn and scattering more in and about the pen, we returned to the house. The remainder of the day I was too restless to sit down or do anything else but talk to my brother Lish about the trap. Several times we stole cautiously to a knoll that overlooked our treasure, but fortune did not favor us that day.

No sooner were we dressed the next morning than Lish and I hurried again to the knoll. The trap was down! My heart beat painfully as I rushed to it, and yet more painfully when I found it empty. The trigger string had been cut and I could do nothing but hurry to Dave with the woeful story.

He said a hare had been caught and had cut the string in gnawing his way out. He promised to make a dead fall to catch the rascal, and cautioned me to close the quail trap at night. When he had repaired and rebaited the trap I began my second day's watch.

Nothing happened until 3 o'clock, when we found the trap sprung. I flew to it, my brother at my heels, and the sight that met our eyes was soul delighting. The trap was filled with quails. I stepped into the pen, slipped my hand through the slide door and seized a plump, bright-eyed beauty. I had with one hand gathered my big apron into a bag and in that I put the bird. I reached in the pen, caught another quail and was putting it in my apron when the first slipped out and flew away. Lish smiled, but I didn't. As I grabbed a third bird, No. 2 made his escape. The next was fairly in the bag before No. 3 took his departure.

By that time Lish had progressed through smiles, giggles and uproarious laughter to a state of exhaustion that compelled him to cling to the pen for support. I scowled at him savagely while putting the next bird in my apron, only to hear another burst of laughter as No. 4 took flight. Improbable as it sounds, that thing continued until 11 birds had escaped from me and only one remained in the trap. I grabbed the last victim with both hands and started mournfully for the house. As I was climbing the garden fence the top rail broke, letting me fall to the ground and freeing my twelfth captive.

I reached home the most crestfallen creature in the world. Lish giggled while I told the story and my parents strove hard to suppress their emotions. Even beefy faced, shock headed Dave showed no sympathy. "Why, Kate," he said, "why didn't you pull their heads off as fast as you caught them?"

"You didn't tell me to," I protested.

"'Course not," he replied; "I thought anyone had sense enough for that."

THE SWAMP ANGEL

FRANK H. SWEET.

Hark! the hermit thrush is singing,
And his wild, ethereal strain,
Like a silver horn is ringing
Over forest, hill and plain.
"O speral, speral, speral!"
We seem to hear him say,
"O holy, holy, holy!
O clear, O clear away!"

From gloomy swamps and lonely ways,
And woodlands that are wild and dim,
We hear in rising notes of praise
The hermit's tender evening hymn;
"O holy, holy, holy!"
We seem to hear him say,
"O speral, speral, speral!
O clear, O clear away!"

THE RED HEAD.

ALLAN BROOKS.

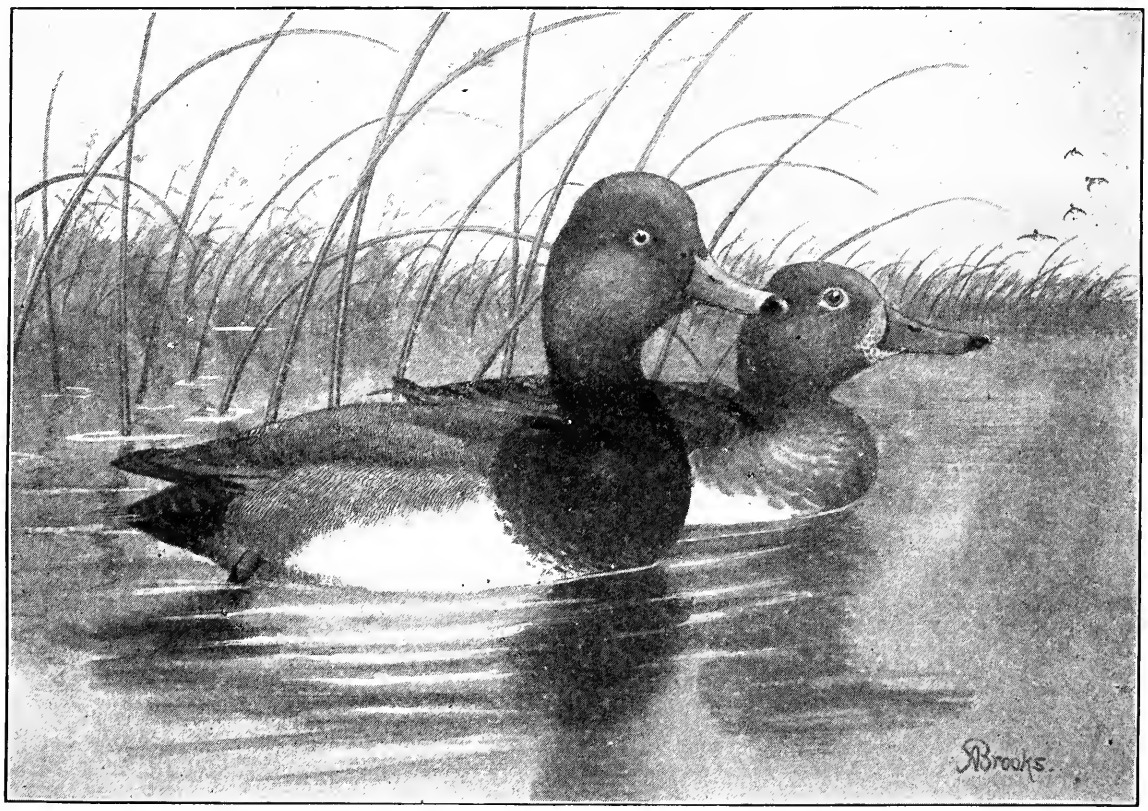
The redhead has a wide distribution, being found throughout the continent from Atlantic to Pacific. Unlike its congeners, it is not found in the far North, and is one of the few diving ducks that breed commonly as far South as the United States. In the old world it is replaced by a closely allied species, the pochard, which differs from the redhead in the coarser vermiculations of the back and flanks. In America the redhead is often confused with the far-famed canvasback; but this can always be distinguished in both sexes by the long narrow bill, which is entirely black, instead of leaden blue with a black tip, as in the redhead. A much closer ally of the redhead is the ringbill, or ringnecked duck. In form, habits, and coloration of eggs the ringbill and the redhead are identical, and the female of the ringbill is an almost exact miniature of the female redhead. Old male redheads also acquire the white subterminal band across the bill, though this is never so pronounced as in the ringbill.

The redhead is a fine game duck, frequenting marshes in preference to salt water, and is generally a first class table bird, as its food is more exclusively vegetarian than that of most other diving ducks. It is a rapid flyer and an expert diver. A winged redhead will generally make good its escape if there is any cover within reach.

The redhead seems to be a silent duck. During the pairing season it utters a low, grating cry, at the same time shaking and jerking its head about, exactly as if something was stuck in its throat. The ruddy duck has the same action when courting.

In most localities West of the Rockies the redhead is scarce, and I have never observed in British Columbia the enormous flocks of them that one sees in Eastern America.

In the adult male the iris is deep yellow, in the female more brownish. The feet are dull lead color, with black webs; bill leaden blue, with tip and extreme base black.



THE RED HEAD, *AYTHYA AMERICANA.*

A Georgia man, who has gone to Washington in search of a government job, gives as his qualifications: "I can not only write poetry and novels, but there ain't a government mule that can throw me.'—Atlanta Constitution.

PETE MADE HIS MARK.

E. M. LEETE.

About the nicest thing to ride is a hobby, if you don't ride too much. The hobby that suits me best is fishing, from what little I know of it. Of course I should not wish to fish all the time nor make a business of it. Sundays I would willingly give up the sport, and even on Saturday afternoon, if my family needed anything, I should enjoy doing what I could for them.

It has always seemed strange to me that my wife looks at the matter in a different light. She is a sensible woman about almost everything else. I have argued with her by the hour and tried to show her how much the children enjoyed a fish dinner. I have pointed out that fish was a brain food and saved a whole lot on the meat bill; but talk as I would, and I have even worked nights at it, I could not convince that woman. She will insist on my being at the office nearly all the time.

There are times, however, when one has a cold, or a corn, or may be a headache that only fresh air will cure. Now, air is never so fresh as when coming over water, and if you are going to take it that way why not fish at the same time?

One day, as I had a cold or was afraid I should have one, I spoke to my fishing mate, Luther, and suggested that the tide was coming about right for fish the next day, and if he knew where there was any bait we might go. I never like to go alone, and this friend, while not handsome, is useful in a boat. He is a fair angler, mostly catching the small ones that snoop my bait. The big fish I take care of. I did know of his putting one large fish in the boat; that is, I hooked and played it, and Luther lifted it in for me.

We had a common friend, Pete, who worked in a bank. He went down at 8 or 9 in the morning, and sat on a high stool until 3 p.m. I often envied that man his job. If a man must work, it struck me that he couldn't do much less. We feared Pete was getting run down, and was perhaps going into a decline, so we invited him to come with us. He said he hated to leave his business, but he supposed someone must go along to look after us and he would be that one.

For once everything worked to a charm; and 10 o'clock the next day found us at Duck island, with a basket of fish and some bait left. The tide was well up and the fish had nearly stopped biting when we decided to try another ground. There was a rock on the West side of the island, near the shore, called "Junk of Pork," from its shape. It was 8 feet square on top, with vertical sides standing 7 feet out of water. It was a hard rock to land a fish on, and not an easy one to land oneself on; but the fishing near it was good at high tide.

On that rock I landed my 2 friends, with a basket, some bait and a spare snood or 2, while I went just around the other side of the island to Table rock. I anchored the boat, bow and stern, and went to fishing. I fished as hard as I could, for to tell the truth, my companions, while coming from good families, had their faults. Their training had been sadly neglected in some particulars, and if by any chance they should show the most fish when we met, they would be very likely to say unkind things. My boat lay perhaps 5 rods from the shore and between me and the land there were rocks of all sizes, covered with the sharpest of barnacles.

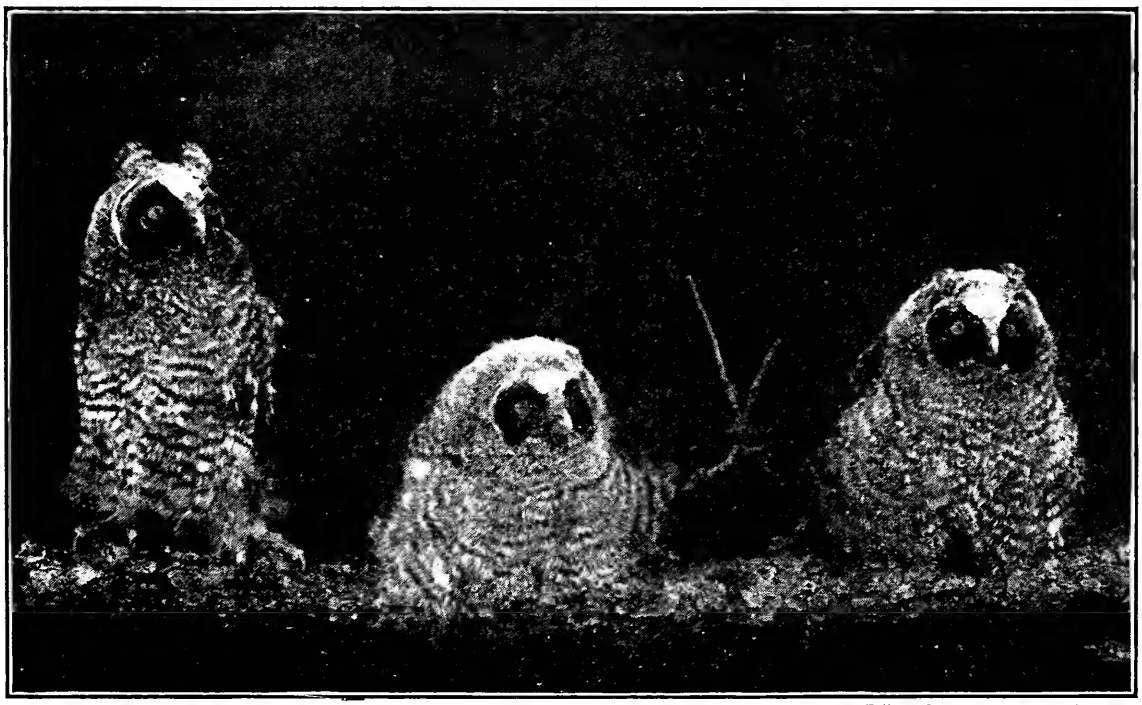
The light wind of early morning had died out, and the hot sun shone on a sea of glass. Schooners bound East had dropped their jibs and anchored, unable to stem the flood tide. The smoke from a tug with a long tow of barges was blackening the clear blue of the sky. Aside from a few gulls playing overhead the sea was asleep, and all was quiet.

I was nearly asleep myself, when happening to glance toward the island, I beheld a strange sight. On that little island, 4 miles off shore, with not a soul on it, as I supposed, I saw a man clothed as was our alleged forefather, Adam, save that I noted a lamentable absence of fig leaves. He did not even wear a smile; in fact, he wore nothing but his skin. I noticed, however, that it was a good fit. As he came nearer I saw red marks on his body, running up and down, with now and then one across. Further inspection showed it was Pete. He was walking carefully, and well he might, for the rocks were covered with barnacles, and barnacles are no better than broken glass to walk on. He limped along by the bushes, down to the water's edge. Then I hailed him. He was not talkative, so I waited and watched. He jumped from one rock to another, now waist deep in the water, now on the surface, and again swimming a few strokes until he gained the boat.

He had been so occupied with his gymnastics that I could not attract his attention; but when he was fairly seated in the boat I felt that I had a right to know what all this was about.

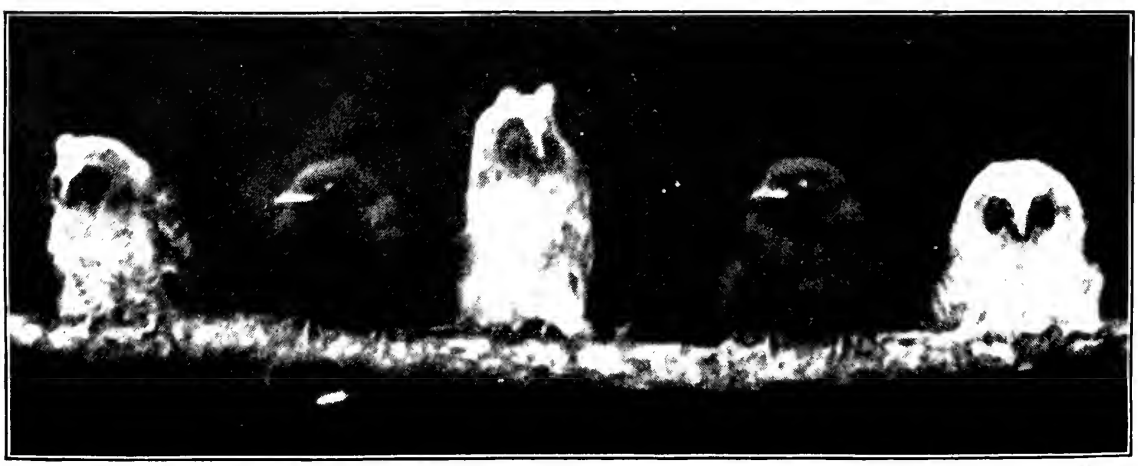
What he said first I will not repeat, but it had condemnatory reference to barnacles.

Later I gathered that he had hooked a fish, just after they had landed, and had lost his hooks, snood and all. They both supposed there were plenty of spare hooks in the basket, but were unable to find any; so, being carried away with piscatorial ardor, Pete stripped and in some way, best known to himself, got into the water from that high rock, gained the shore and came to me for more hooks. He appeared rather mussed up, as he sat with the water dripping from his body and his hair plastered down with the wet. His stomach looked like a weather map of New England after a blizzard. From what I could learn I inferred that the barnacles cut him. It certainly looked that way to an outsider. He asked me if I thought the gashes would heal. I said "Yes"; but he seemed to think he was marked for life. We weighed anchor and went over for Luther and for Pete's clothes, and when the basket was handed down we discovered the missing hooks underneath it. No remarks were made.



AMATEUR PHOTO BY H T. WHITMORE.

THREE OF A KIND.
Made with Korona Camera.



AMATEUR PHOTO BY H. T WHITMORE.

A STUDY IN BLACK AND WHITE.
Made with Korona Camera.

SARANAC LAKE TO CANADA BY WATER.

CHARLES D. FERNALD.

Not having felt well for several weeks, I decided to take a rest, and have a change from the grind of business to nature, for she is so gentle in the spring. Within 4 hours I was abroad the New York Central's Adirondack train, with shot gun, fishing rod and other tackle. I had no idea where I should leave the train, but later decided to go to my old starting place, Saranac Lake. There I secured as guide John Benham, who is the best member of his profession I have ever met. He was the owner of a small Adirondack skiff, 14 feet in length, 28 inches beam, and in that canoe I decided to take a trip.

We started from Saranac Lake at noon Thursday, April 18, bound for Montreal by water. We had to go by the Saranac river to Plattsburgh, then by Lake Champlain and the St. Lawrence the remainder of the distance. Thursday afternoon we made good time for about 20 miles, and stopped at a log house near Union Falls for the night. Friday we had a hard, dangerous day. We left Union Falls about 6.30 a. m., and started for Plattsburgh, which we expected to reach by night.

Above Union Falls we had passed through some bad rapids, but what we found below Union Falls made the others look like still water. We had 7 miles of white water, or white caps. We ran most of the way, but toward the end we had to get out and carry, about 12 miles, in all. The river is so crooked in that country, that it is hard to estimate the distance between 2 places. We came near running over High falls at Russia. We were running along in water that was going like a mill race, with plenty of rocks to make it interesting, when suddenly we saw the river drop. We could not stop ourselves, so we went into the rapids. They were fierce, the river dropping off foot after foot. We ran through them about a mile before we could get near enough to the shore to catch the bank as it went by. After landing, we went below and watched the river tearing and whirling through the big cut in the mountain at Russia, where the drop of the falls is between 160 and 170 feet. Had we gone ⅛ of a mile farther we should have been done for. No boat can live in the falls 60 seconds.

We continued down the river and reached Cadyville that night. There we put up at an apology for a hotel. In the middle of the night I was awakened by someone trying to get into my room. I took my revolver and waited. Soon a man's head and shoulders were thrust through the window. I called out to know what he wanted. As soon as he answered I knew he was under the influence of liquor. He was trying to get to his room, which was next to mine, without anyone's knowing it, and he had taken the wrong window. I was thankful I did not shoot first, and inquire afterward what he wanted.

Saturday morning we started on. The rapids still made it interesting. We reached Plattsburgh that evening, put up at a hotel and took in the town. Sunday morning we started on to Rouse's Point, on Lake Champlain. A stiff breeze was blowing off the lake on to Cumberland Head. It was foolhardy to start, but I did not realize that until we were out in the lake. The water was running high and was capped with white. The little boat behaved nobly, however, and took us safe to shore. The wind died out about 4 o'clock and then we made better time. We arrived at Rouse's Point at 8 o'clock Sunday evening. There I realized I had enough. If we should go farther we would find ourselves running the Lachine rapids in our skiff; so I sent the guide back to Saranac Lake over the Chateaugay road and took a train on to Montreal, which was about 40 miles down the river. After staying in Montreal a day, I took the train back to Saranac and to my surprise learned that Jack had sold our skiff at Rouse's Point after I left. Tuesday evening I returned to New York, with a color like an Indian's and feeling like a new man.

Little Willie—Say, pa, what was Washington's object in crossing the Delaware?

Pa—He probably heard the peach crop was a failure and crossed over to investigate.—Exchange.

SUICIDE?

The photo herewith shows an oriole's nest which I discovered a few days ago in a fallen tree. The dead and dried body of

the builder was suspended from the nest by a horse hair about its neck. The body of the bird is in good condition.

E. B. Heiney, Huntington, Ind.

"I suppose you keep in touch with your nephew while he's away at college," said Dr. Choker to Mr. Munn.

"Well, he keeps touching me, if that's what you mean," replied the uncle.—Detroit Free Press.

RECREATION is, as you claim, the ideal sportsmen's magazine of the country.

E. B. Dennett, Portland, Me.

FARMER BROWN'S EXPERIENCE.

W. A. FULLER.

I'd read into the papers thet
Come every week from town,
How they was made a sort of spoon
Fer lurin' fish aroun'.

I bought one, rigged 'er up, and went
Straight off down to the crick,
And dropped it in real quiet-like,
Right where the fish was thick.

I kinder chuckled as I thought
How s'prised the folks would look
When I brought home the fish I'd ketch
On thet new-fangled hook;

And as I sot and waited with
My back agin a tree,
I thought how some folks never knowed
What great inventions be.

I waited quiet-like and still,
The fish they waited, too;
"What's this?" it seemed as if they said,
"This here is something new!"

So there I sot and fished and fished
From early morn till night,
And when the sun was goin' down,
I hadn't had a bite.

I pulled my line in, wound 'er up,
Looked kinder shy around;
And then I took that fancy hook,
And stomped it on the ground.

I've no more use fer fancy rigs,
Or shiners made of tin,
Fer angle worms 'll ketch more fish
Than spoon baits ever kin.

Have been a reader of your magazine nearly 3 years. Have every issue on file since October, '99, and would not take many times the cost for them. It is the best sportsmen's journal published. The Peters Cartridge Co. and the Marlin people were foolish to withdraw their ads becausc somebody did not like their goods.

L. W. Putoz, Westfield, Mass.

RECREATION is the best sportsmen's magazine published. Am glad to see the subscription list growing so fast.

F. B. Cortright, Mauch Chunk, Pa.

Can't do without RECREATION.

S. D. Bristow, Cherokee, Iowa.

THE MOOSE HEAD AT THE PAN-AMERICAN.

I notice in the editorial department of January RECREATION an inquiry regarding a moose head measuring 67 inches, which it is supposed was exhibited by the Ontario government at the Pan-American Exposition.

I do not know certainly that the head was exhibited by the Ontario government, but I had in my hands, for the purpose of mounting, a head, photo of which I herewith enclose you. The antlers had an ex-

treme spread of 67 inches, number of prongs 16 and 17, width of palm 18 and 19 inches, inside beam 42 inches, circumference of burr close to head 14 inches. The horns are a beautiful rich brown color, and symmetrical. The head was large, and in proportion with the horns. The skin was a beautiful dark color, and the whisker, or bell, was intact, measuring 12½ inches.

This moose was shot on the Demoine river, which is a tributary of the Ottawa river, about 50 miles from Pembroke, by an Indian named Batice Seymo. The head was secured by R. A. McCracken, agent for the E. B. Eddy Company at Big Lake, who brought it to me, for mounting. Mr. McCracken afterward presented it to Mr. W. H. Rowley, secretary-treasurer of he E. B. Eddy Company at Ottawa, Ontario. I understood the head was to go to the American exposition at Buffalo.

I handle a large number of moose heads, and I find in this head a most remarkable thing, which you will notice in the photo; namely, that it attains its greatest measurement 19 inches from the burr forward on the front palm, both sides being well developed.

This head is now in possession of Mr. Rowley at Ottawa. If you, or any reader of RECREATION, may wish any further information I shall be most happy to furnish it.

G. H. Belaire, Pembroke, Ontario

Regarding the moose head at the Pan-American Exposition the statement as to its measurements is correct. It was mounted for the Ontario Government, by Messrs. Oliver Spanner & Co., of this city, and it was on view in their shop window. It is a fine specimen, said to be the largest ever killed in Ontario. It was killed near Powassan, about 20 miles South of the Town of North Bay, on Lake Nippising.

H. F. Overton, Toronto, Canada.

The moose head about which you inquire was killed at Powassan, Ontario. The spread was exactly 66 inches. This head is in the possession of the Provincial Government.

Two heads obtained near Sturgeon Falls, Ontario, about a year ago, measured 56 and 53½ inches respectively. These 3 heads were in our Forestry building at the Pan-American Exposition.

Oliver Spanner & Co., Toronto, Canada.

HOW TO MAKE A CAMP.

Camp life, because of its simplicity, is rapidly coming into vogue. Here are a few simple directions:

Secure a good forest and a fair sized lake in some uninhabited region where game abounds, and clear away a tract of 3 or 4 acres. This can be made into a fine lawn with a few hundred carloads of imported sod. In the centre erect your buildings. The main building need not be more than 3 stories high, and can be built of white marble on the outside and white mahogany on the inside. A good living house like this can be put up for about $20,000. The servants' quarters should be separate. So should the barn. A boat house can be built on the lake, and a wharf not more than a mile long is desirable. After this, all you need is a windmill for pumping water, an electric light plant, 3 or 4 steam launches, an ice house, a bowling alley and a ping pong court. The whole affair need not cost more than $100,000.—Life.

It is a great pleasure to get subscriptions for RECREATION, which is so alive and up-to-date. All I did was to give my friends a back number and they all say RECREATION is the best sportsmen's journal published.

Walter Harris, San Gabriel, Cal.

YOUNG BRISTLEBACKS.

The enclosed photo tells its own story, so just put these 2 porkers with the others and roast them to suit your taste. You see they have their faces turned away. They evidently had in mind what you might do to them. These 2 butchers shot 42 cottontails and boasted that only one got away. They regretted that work prevented further slaughter. We have but little game here and it is an outrage that such hoggishness should be tolerated. These 2 boys, whose names are Billy Schermerhorn and Frank Seecum, kill everything they see. Roast

them brown and show them how they look in the eyes of true sportsmen.

L. A. F., Radnor, Pa.

These boys were wise in turning their backs to the camera. No doubt they look much handsomer that way than they would if their faces could be seen. Any man or boy who will slaughter game to the extent these boys did may well feel ashamed of it. I trust the time may soon come when no one will be willing to stand up and confess such a crime before the world in the way of a photograph.—EDITOR.

RECREATION has done more toward educating game hogs to abandon their shameful practices than anything ever before published.

W. H. Hubbard, Glenwood Springs, Col.

RECREATION is the greatest magazine out. I secured 30 subscriptions in 2 hours from people not at all interested in sport.

W. M. Barrett, East Windsor, N. Y.

RECREATION is the finest magazine published.

S. A. Munson, Indianapolis, Ind.

'TAIN'T TH' SAME.

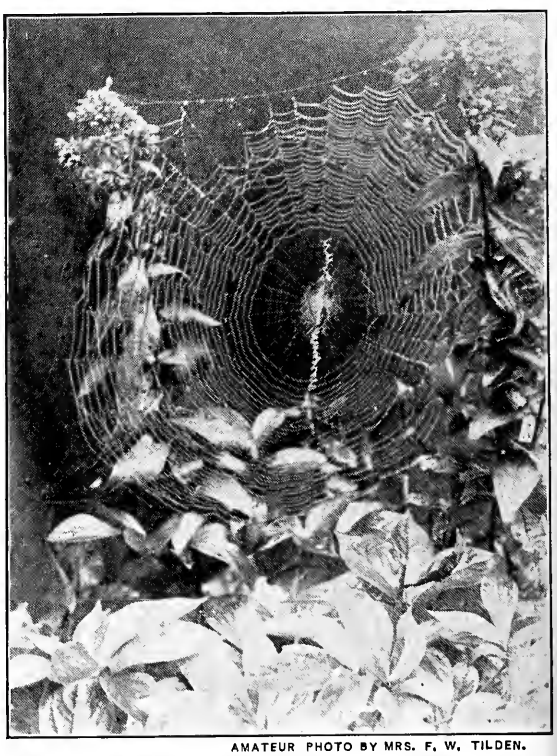
Guess my tackle is th' best—
  Rod o' steel an' fancy flies;
Lines that stand th' toughest test—
  Reels enough for every size;
Yet when I a-fishin' go
  An' recall th' early fame
Of a boy I used to know,
    'Tain't th' same.

Useter own a hickory rod—
  Hook, cork, sinker—nothin' more;
Useter turn th' garden sod
  After worms 'longside th' door.
Useter angle in th' brook—
  Speckle trout aroun' me came,
Seemed to hanker for my hook—
    'Tain't th' same.

There I'd sit an' fish an' fish,
  Starin' at th' quiet pool;
Sit an' watch an' wait, an' wish—
  Quite forgettin' home an' school,
Often caught a lickin', my!
  Dad was quick to place th' blame!
Fishin' cost this youngster high—
    'Tain't th' same.

Fishin', an' inventin' tales—
  Kind o' skatin' round the truth,
Is a sport that never stales
  In th' golden days o' youth.
Got th' tackle that's the best,
  Yet th' sport seems gettin' tame;
What's the tackle 'thout th' zest?
    'Tain't th' same.

—Cleveland Plain Dealer.



AMATEUR PHOTO BY MRS. F. W. TILDEN.

WILL YOU WALK INTO MY PARLOR?

ALASKAN GAME TO BE SAVED.

Another great victory has been achieved. The bill for the protection of game in Alaska has passed both Houses of Congress, has been signed by the President and is now a law. For this, all sportsmen are deeply indebted to that veteran fighter for the birds and the wild animals, the Hon. John F. Lacey, who introduced this bill and has pushed it through both Houses.

The L. A. S. has rendered valuable assistance in this work. A large majority of our members responded promptly to the call sent out to them immediately after Mr. Lacey introduced the Alaskan bill, and thousands of letters from Congressmen and Senators, to League members, have been sent me. In these letters, a majority of the Representatives and Senators pledged their constituents unconditional support of the bill, and they have made good their promises. Following is the full text of the bill:

From and after the passage of this Act the wanton destruction of wild game animals or wild birds, the destruction of nests and eggs of such birds, or the killing of any wild birds other than a game bird, or of a wild game animal, for the purposes of shipment from Alaska is hereby prohibited. The term "game animals" shall include deer, moose, caribou, sheep, mountain goats, bears, sea lions, and walrus. The term "game birds" shall include water fowl, commonly known as ducks, geese, brant and swans; shore birds, commonly known as plover, snipe and curlew, and the several species of grouse and ptarmigan. Nothing in this Act shall affect any law now in force in Alaska relating to the fur seal, sea otter, or any fur-bearing animal other than bears and sea lions, or prevent the killing of any game animal or bird for food or clothing by native Indians or Eskimo or by miners, explorers, or travelers on a journey when in need of food; but the game animals or birds so killed shall not be shipped or sold.

It shall be unlawful for any person in Alaska to kill any wild game animals or wild birds except during the seasons hereinafter provided: Large brown bears, April 15 to June 30, both inclusive; moose, caribou, walrus, and sea lions, September 1 to October 31, both inclusive; deer, sheep, and mountain goats, September 1 to December 15, both inclusive; grouse, ptarmigan, shore birds, and water fowl, September 1 to December 15, both inclusive: Provided, that the Secretary of Agriculture is hereby authorized whenever he shall deem it necessary for the preservation of game animals or birds to make and publish rules and regulations which shall modify the close seasons hereinbefore established, or provide different close seasons for different parts of Alaska, or place further restrictions and limitations on the killing of such animals or birds in any given locality, or to prohibit killing for a period not exceeding 5 years in such locality.

It shall be unlawful for any person at any time to kill any females or yearlings of moose, caribou, deer, or sheep, or for any one person to kill in any one year more than the number specified of each of the following game animals: 2 moose, walrus, or sea lions; 4 caribou, sheep, goats, or large brown bears; 8 deer; or to kill or have in possession in any one day more than 10 grouse or ptarmigan, or 25 shore birds or water fowl.

It shall be unlawful for any person at any time to hunt with hounds, to use a shot gun larger than 10 gauge, or any gun other than that which can be fired from the shoulder, or to use steam launches or any boats other than those propelled by oars or paddles in the pursuit of game animals or birds. The Secretary of Agriculture is authorized to make and publish such further restrictions as he may deem necessary to prevent undue destruction of wild game animals or wild birds.

It shall be unlawful for any person or persons at any time to sell or offer for sale any hides, skins, or heads of any game animals or game birds in Alaska, or to sell, or offer for sale therein, any game animals or game birds, or parts thereof, during the time when the killing of said animals or birds is prohibited: Provided, that it shall be lawful for dealers having in possession any game animals or game birds legally killed during the open season to dispose of the same within 15 days after the close of said season.

It shall be unlawful for any person, firm, or corporation or their officers or agents to deliver to any common carrier, or for the owner, agent, or master of any vessel or for any other person to receive for shipment or have in possession with intent to ship out of Alaska any hides or carcasses of caribou, deer, moose, mountain sheep, or mountain goat, or parts thereof, or any wild birds or parts thereof: Provided, that nothing in this Act shall be construed to prevent the collection of specimens for scientific purposes, the capture or shipment of live animals and birds for exhibition or propagation, or the export from Alaska of specimens and trophies, under such restrictions and limitations as the Secretary of Agriculture may prescribe and publish.

Any person violating any of the provisions of this Act or any of the regulations promulgated by the Secretary of Agriculture shall be deemed guilty of a misdemeanor, and upon conviction thereof shall forfeit to the United States all game or birds in his possession, and all guns, traps, nets, or boats used in killing or capturing said game or birds, and shall be punished for each offense by a fine of not more than $200, or imprisonment not more than 3 months, or by both such fine and imprisonment, in the discretion of the court: Provided, that upon conviction for the second or any subsequent offense there may be imposed in addition a fine of $50 for any violation of sections 1 and 3, and a fine of $100 for a violation of section 2. It is hereby made the duty of all marshals and deputy marshals, collectors or deputy collectors of customs appointed for Alaska, and all officers of revenue cutters to assist in the enforcement of this Act. Any marshal or deputy marshal may arrest without warrant any person found violating any of the provisions of this Act or any of the regulations herein provided, and may seize any game, birds, or hides, and any traps, nets, guns, boats, or other paraphernalia used in the capture of such game or birds and found in the possession of said person; and any collector or deputy collector of customs, or any person authorized in writing by a marshal, shall have the power above provided to arrest persons found violating this Act or said regulations, to seize said property without warrant, and to keep and deliver the same to a marshal or a deputy marshal. It shall be the duty of the Secretary of the Treasury, on request of the Secretary of Agriculture, to aid in carrying out the provisions of this Act. Provided further, that nothing contained in the foregoing sections of this Act shall be construed or held to prohibit or limit the right of the Smithsonian Institution to collect in or ship from the District of Alaska animals or birds for the use of the Zoological Park in Washington, District of Columbia: Provided further, that such heads and hides as may have been taken before the passage of this Act, may be shipped out of Alaska at any time prior to the first day of July, 1902.

FROM THE GAME FIELDS.

The man who quits when he gets enough, with plenty of game still in sight, is a real sportsman.

CAMP COOKERY.

MRS. A. ATWOOD.

It was a novel experience to make light bread when we were out camping, and it took the greater part of 2 days to accomplish it. About noon I put a cake of dry yeast to soak. When it was thoroughly softened, I poured it into a tin lard bucket, added one cup of water and one of flour, stirred it well, and set it in a warm place to rise.

That sounds easy, doesn't it? But it took all my ingenuity to find the warm place. I put the pail in a large iron kettle, and sat the kettle just near enough to the camp fire to keep it warm, turning it frequently. Both pail and kettle were covered with tin covers.

Besides our camp wagon we had a top buggy, which had a waterproof lid over the rear of the box. At night I added to my bread batter 2 cups of water, enough flour to make it thick, and a small handful of salt. We did not keep our fire burning all night, and on account of the dogs, or possible wild "varmints." I could not leave the dough as in the afternoon. I put it in the back of the buggy box, placed 2 or 3 heated stones beside it, and packed the space under the buggy seat with gunny sacks. In the morning everything was white with frost, and I feared for the success of my bread, but it looked light and bubbly. I worked into it all the flour I could and put it near the fire to keep warm. It was about 3 hours before it was sufficiently light. I kneaded it well, and molded out a pie pan full of small rolls. The Man insists on calling them biscuit. In another hour the rolls were light enough to bake. I baked them as slowly as possible in the Dutch oven. I had, however, too much dough. I could not bake it all before it would sour. I made one loaf, as flat as possible, put it in a pie pan, and had enough for 2 more loaves. I greased 2 small lard pails and put half the bread in each. They were about 1-3 full. I kept one as warm as possible without baking it, and the other as cool as I thought it would keep and continue to rise, so they need not be cooked at the same time. To cook them I put them in the kettle and filled it half full of boiling water. I had to put a stone on top of the pail cover to keep it from tipping over in the water. After an hour's boiling the loaf was done, and our hungry hunters pronounced it fine.

One of our party had a birthday to celebrate while we were out, so we fixed up a big dinner in honor of the occasion. The especial surprise of the feast was apple dumplings. I made ordinary biscuit dough and flattened it out into 4 pieces, each about the size of a breakfast plate. On each piece I put 3 or 4 pieces of apple, pared and cored, and a tablespoonful of sugar. I pinched the edges of the dough together, put the dumplings in a greased pail and boiled them, like the bread, 3 hours.

The hunters had a bottle of vinegar to use in cleaning their guns. On that day I took one tablespoonful of the vinegar, stirred it into one cup of sugar and 2 tablespoonfuls of flour, added one cup of boiling water, let it boil once, and it made a good sauce for our dumplings.

Roast duck: Put 2 small ducks in the Dutch oven, with as many sweet potatoes as you will want. Sprinkle with salt, add one cup of water and a tablespoonful of butter or grease. Bake one hour, keeping the oven at a brisk heat, but avoid burning.

Stuffed squirrel: Only young and tender game should be prepared in this way. Dress them in the usual manner, fill them with bits of moistened bread, well seasoned with pepper, salt and sage, or onions, if they are to be had. Sew them up carefully, place in the frying pan with a little water, steam till tender, then add a spoonful of grease, and brown them nicely. Remove the thread, take the squirrels out of the frying pan, and make a brown gravy. Squirrels are also good when roasted.

Boiled meat with dumplings was one of our favorite dishes, for with coffee it made a complete meal. Use any scraps of venison, or other game, boil till tender in an abundance of water, season well, and throw in the dumplings, made as biscuit dough. Replace the cover, let it boil rapidly 15 minutes, and you have bread, gravy and meat all out of one kettle.

Deviled meat: It sometimes happens that there is a variety of small game brought in at the same time that another hunter brings to camp the first venison or turkey. To utilize this, make some deviled meat. Boil squirrels, quails, ducks and some of the venison all together until thoroughly tender. Let them cool a few minutes, then with 2 forks remove the bones and shred the meat as fine as possible. Put over the fire again, season well, and boil till the mass is almost dry. Pack it in empty tin cans and place a weight on each. It will prove delicious some day when the cook joins the hunters, and everyone comes home

to camp tired and hungry, or when on the move and there is little opportunity for cooking.

We are not Southern folks, and did not take kindly to biscuit and hoecake, so for variety we sometimes made Boston brown bread, as follows: One pint of water, ½ cup of sorghum, 1-3 cup of grease, one teaspoonful of soda, one cup of flour and one pint of corn meal. Pour into a greased pail, put the pail in a kettle of boiling water and boil 2 hours. Open the pail and put it near the fire a few moments to dry. May you enjoy camping as much as I did!

A MISLEADING CIRCULAR.

Roselle, N. J.

Editor RECREATION:

In spite of the Lacey act, in spite of the L. A. S., the illegal depletion of our game covers continues, and we must still fight before we can hope to have good laws properly enforced.

A few quotations from a circular will show how the market hunters are infringing on the rights of every sportsman. In the section given to Pennsylvania it says: "Ruffed grouse have been plentiful for several years in Venango county, but market hunting has depleted their number. During '96 at least 2,000 were shot in this county, where one pot hunter captured about 700. The same may be said of Tioga county. It is reported that market hunters sent to New York during '95 over $5,000 worth of grouse. Westmoreland county yielded about $1,000 worth of game in '96, consisting of wild turkey, grouse, quails, rabbits and squirrels. Five merchants in Wilkesbarre, from October, '95, to January, '97, sold 3,500 grouse. One Luzerne county hunter is reported to have killed in '96, within a radius of 30 miles of Wilkesbarre, 804 grouse; in '95 this same individual marketed about 1,200 grouse. York county formerly contained a great deal of game. A few years ago fully $8,000 worth was annually shipped from this county, but market shooting has greatly reduced the supply. From 5 townships in York county there were sent to market in one year 1,800 quails, 2,800 rabbits, and 3,000 wild ducks. In 1896 a firm in Susquehanna county bought 3,000 grouse, 1,500 quails, 30,000 squirrels, and 40,000 rabbits."

This work is still going on, for although it is unlawful to ship game out of nearly all States, it is still permissible to sell game within State limits. A grouse killed in Pennsylvania looks exactly the same as one killed in New York, and after the game illegally shipped is unpacked, who can detect the crime? As long as the sale of game is permitted anywhere, just so long will men shoot game for the market. Three Western States have abolished the game market, and have, under the guidance of the L. A. S., nobly commenced the final struggle for the preservation of our game. Let New York be "not the last to lay the old aside"; let all States unite in this grand cause, and the battle will be won. This should be every sportsman's first endeavor. Spring shooting and every other kind of vandalism is not so destructive as the game market.

As a result of spring protection to game more birds are staying every year in Vermont to breed than formerly, and undoubtedly when pickerel shooting is made unlawful many more will stay; as the constant banging of the pickerel shooter every spring must drive many ducks away.

Even in New Jersey, where spring shooting is still permitted, I know of 2 ducks' nests within 2 miles of Rahway. One is a wood duck's; the other, a black duck's. If the open season ended January 1, thousands of ducks and marsh birds that ordinarily go far into Canada would stay with us. The Canadian Indian, who smokes and salts down thousands of ducks for his food supply in winter, would wonder why the yearly flight across the line was growing less, and we should rejoice that our game birds were no longer driven to the far North. C. D. H.

The statement you quote from the circular is no doubt grossly exaggerated. For instance, it is stated that in one year 3,000 ducks were shipped from 5 townships in York county, Pa. That is not a duck country in any sense. A few ducks may be found each year along the Susquehanna river, but I doubt if even 200 were ever killed and shipped from that county in one year.

The statement that a firm in Susquehanna county bought and shipped 30,000 squirrels in one year is simply absurd. I doubt if that many squirrels have been killed in that county in the past 10 years.

A number of men have been prosecuted for violations of game laws in Susquehanna and York counties within the past 5 years, and but little illegal shooting or selling of game is done in that county now.—EDITOR.

HOW MR. SHARP CONSTRUES THE LAW.

Hon. John Sharp, Salt Lake, Utah:

I have several times been informed by citizens of your State that you have made ruling to the effect that a so-called sportsman may take with him in his boat a guide or pusher on the duck grounds; that the sportsman may, if he choose, forbid the guide doing any shooting, and that he, the

sportsman, may kill 80 ducks in a day. That when the 2 men come in from the shooting grounds with guns and with 80 ducks in their boat, you do not deem it proper to ascertain or have your deputies ascertain, whether each of the men killed 40 of these birds or whether the employer killed all of them. I beg to inquire whether this report is correct.

It is alleged by several earnest friends of game protection in your State that non-residents who go to Utah to shoot ducks make a practice of employing guides, of allowing them to carry their guns with them on the boat, and then of doing all the shooting, forbidding the guides to use their guns at all. One man in Colorado writes me direct that he took 4 men with him in a boat one day, and that as he did not allow them to do any shooting he killed 200 birds himself. I do not credit this story, but should like to know how you construe the law which limits each man to 40 ducks.

G. O. Shields.

Salt Lake, Utah.

Mr. G. O. Shields, New York:

Reports similar to those you mention have reached me, and I have no doubt they are true to a considerable extent; but as last season was the first in which we have had a limit law, I did not construe it one way or the other, thinking that true sportsmen would not try to evade the clear meaning of the law the first season. It seems, however, there are few true sportsmen to be found in an out-of-the-way place like Duckville, Utah. I construe the law just as it reads, and shall hereafter enforce it to the best of my ability. It will be difficult to enforce, as there is nothing in the law to prevent a boatman, or pusher, from taking his gun with him, unless the gun club makes a rule to that effect, and if the would-be sportsman allows his guide, or pusher, take his gun along, it will be difficult to say whether both or one does the shooting. They might be put under oath when they come in at night, but I have observed that men who are perfectly honest and upright in everything else will unhesitatingly steal and lie about fish and game. In the future this limit law will be enforced as far as possible, and each man, whether he be resident or non-resident, will be confined to his 40 bird limit. If it can be proven that any man takes the liberty of shooting the score of his guide, or pusher, the employer will be prosecuted. I can hardly believe the story of your 4-ply Colorado hog, but it is possible, and the deed might have been done without my hearing of it. With all the reported evasions and violations for the first season of the bag limit, I am pleased to say that the barbarous slaughter was reduced about 300 per cent over former seasons, and I trust we shall be able to lessen it still more hereafter. John Sharp, Commissioner.

NOT SO BLACK AS PAINTED.

The State of Durango has many American residents. One of the most prominent is Dr. L. H. Barry. Dr. Barry, who is a most enthusiastic sportsman, has sent to friends here a number of photographs which show with what success his last expedition into the Sierra Madre country was crowned. The doctor and his family spent 8 days in camp, during which time the doctor alone shot 19 deer, in addition to a great number of turkeys, grouse, and other fowl. This camp was pitched in the heart of the mountains, 85 miles from Durango, and was reached with a pack train of 12 Mexican burros. Included in the journey were the passage of a barren plateau and a stiff mountain climb.—Exchange.

Regarding the statements contained in above clipping, Dr. Barry writes as follows:

In reply to your letter would say that your information is far from correct. We did kill 19 deer, but only 3 turkeys. Grouse are unknown in Mexico. There were 14 in the party, and we were out 3 weeks. Twelve of the deer we ate, and sent the others to friends in town who kindly equipped us with horses, tents, etc. We could have killed 100 deer if we had cared to. It is common to see 30 or 40 deer a day in that country, which is 3 days' travel from here.

I should like to take issue with some of the old-timers as to the sense of smell in deer. I wear moose hide moccasins and have walked up within 30 feet of deer lying down. They paid no attention until they saw me. Have had deer pass within 20 feet of me. Of course that was when I was standing perfectly still; the slightest movement would send them flying. If their sense of smell is so keen, how do you account for my getting so near them?

I have found them feeding at all hours. I have found them lying down at all hours. After 6 years' hunting here I know practically nothing of their habits. My early ideas as to habits of deer have been exploded. I believe they have the most acute ears of any animal extant. When lying down the ears are working back and forth all the time. Deer can see a leaf move 40 rods away. I believe they depend almost entirely on hearing and sight for the detection of an enemy. In getting away they will jump anything. I saw 2 go over a bank 40 feet high, and keep on going.

C. H. Barry, M. D., Durango, Mex.

GAME COMMISSION PROTECTS LAW BREAKERS.

If W. B. W., of Schuylerville, N. Y., will furnish the correspondence he refers to as having passed between him and the Game Commission I will take charge of

an investigation that will unearth the "nigger in the woodpile," and we can then rest assured there will be less politics than there now is in the Commission. I am working up a case against one of the wardens, and as I have had some experience in breaking up such rings I hope to succeed with this one. I have been through a section of the Adirondacks where still-hunting can not be carried on without snow, yet we read in every county paper of deer having been shot at this or that lake, or pond, and by women, too. We are expected to believe it was done legally. I have written the Commission one letter, and I am collecting evidence against a notorious lot of violators who se to be protected by the warden, for it is well known that they hunt openly, and wherever they wish to hunt; that they buy, sell and trade, and that they exchange dogs with other parties who think immunity lies in not using the same dogs all the time. The breeding of fine deer dogs is as much of an industry as ever, and prices are as high as before protection was instituted. The protection given the deer is like the protection afforded the public of New York city by the police, and a searching investigation would furnish some startling facts. The parties who hunt at Underwood, New pond, Clear pond, the Boreas waters, and Newcomb, are doing it illegally. The entire Southern section of the Adirondacks lacks efficiency in its force of wardens, and the practice of conducting a still-hunt when investigating a violation of the law is wrong in principle and effect. The public knows nothing of the results, and it is believed by many of the law-abiding residents of the region that few convictions are ever obtained. If any are, the fines are not divulged publicly, but you are led to believe that Mr. "A." had to pay a big fine! It is such privacy that has led the people to believe the Commission is not doing its duty unless forced to do it, and then only reluctantly.

Adirondack, North Granville, N. Y.

A SHAMEFUL SLAUGHTER.

BERKELEY.—The coating of oil on the waters of the bay which last week caused many ducks to fall into the hands of Alameda hunters in the vicinity of Bay Farm island, has drifted Northward to the West Berkeley shore. Numbers of ducks that have become entangled in the viscid fluid are being slaughtered by Berkeley boys. Carlisle Coey, Joseph Rose, William Connolly and P. Carcot killed 64 ducks with stones and clubs in one day near Sheep island.—San Francisco Chronicle.

When the above clipping was sent me I wrote the persons mentioned, asking for their version of the affair. One of them answered as follows:

I do not know the cause of it, but the waters of San Francisco bay are often covered with tar oil. Ducks while feeding become covered with the oil, and go to the beach to rid themselves of it. On the occasion mentioned Wm. Conley, Jas. Rose and I were fishing near Sheep island. Landing there, we found a number of ducks on the shore, picking and cleaning themselves. They were so dirty we could not tell what they were until we killed 2 with clubs. When we found they were canvasbacks we went around the island, killing as many as we could with sticks and stones. None of the birds could fly, but many took to the water and escaped in that way. We got 64.

Carlisle Coey, Berkeley, Cal.

It is a great pity that some able bodied, fearless man did not happen along at that time to give you boys what you deserved. You should first have had a few good birch rods worn out on you. Then you should have been undressed, painted with a thick coat of tar oil with a heavy top-dressing of feathers from the ducks you slaughtered rubbed into it; after which you should have been marched home through the principal streets of your town with placards on your backs, printed in large type, "Game Hogs." If you could have had such a visitation of justice as this and such an exposure to public gaze, you might possibly have realized the enormity of your offense. —EDITOR.

A REVEREND GAME HOG.

Enclosed is a clipping taken from our daily paper. This is what I call slaughter of the worst kind and each man should be fined $50 or a year in jail.

B. B. F., Decatur, Ill.

Six hundred and ninety-two rabbits and 270 quails were the result of one day's hunting around Lovington. The game will be served at a big supper for the benefit of the Christian Church, of which Rev. F. C. Overbaugh is the pastor. It is not expected that all this game will be eaten, but the rabbits that are left over will be sold and the quails will be given away, it being against the law to sell them now.

The final arrangements for the contest were completed Monday. A. Hoots was selected captain of one side and William Heffler the other. These captains selected 20 men, and they started in opposite directions.

When the hunters returned to town the people were astonished at the success of their undertaking. The record follows:

Heffler Party—	
Rabbits	363
Quails	132
Hoots Party—	
Rabbits	329
Quails	138
Total	962

The Heffler party was victorious by a narrow margin of 16 points. It was the greatest hunt ever known in this section of the State.—Decatur (Ill.) Herald.

There is some excuse for ignorant, half civilized men like some of those in the rural districts who engage in side hunts, but what shall we say of a minister of the gospel who engineers one of these butchering contests? Rev. Overbaugh has disgraced his calling and has befouled his cloth with the filth of the worst type of game hog known to the world, the side hunter.—EDITOR.

KILLED SPARROWS BY THE TON.

Pana, Ill., Jan. 1.—The annual sparrow hunt of Pleasant township has ended, and as a result 3 tons of sparrows were killed. The hunt was indulged in by 2 parties of farmers. Twenty men on each side engaged in the pursuit, the stake being a banquet to be given by the party securing the fewest birds. The victorious party brought in 13,000 birds, while the losers bagged 11,000, a total of 24,000 sparrows. The birds averaged 4 ounces each. The hunt was in progress one week.

Such a side hunt ought to be productive of good results. The English sparrow is a filthy nuisance, and if he serves any useful end I have never discovered it, unless it be that he may be converted into food. I once cooped about 30 in a poultry house, where I fed them grain for 2 weeks. They were then killed, skinned and made into a pie. I have eaten many things much worse than that pie. The English sparrow besides destroying gardens and industriously filling up the eaves troughs, drives away nearly all other birds. It is perhaps impossible to exterminate them, but by carrying on a vigorous warfare they may be kept within bounds. F. C. Koons, Des Moines, Ia.

I am opposed to side hunts in general, but this kind is different, and I should be glad if such sparrow killing matches could be held everywhere. There is no close season on these birds, and every man who kills one of them contributes liberally to the welfare of the song and insectivorous birds. Why can not fellows who are so fond of slaughtering quails and ducks and prairie chickens satisfy a lot of their thirst for blood by shooting sparrows? Let us have more sparrow side hunts, by all means.—EDITOR.

A VOICE FROM THE WILDERNESS.

This nation is rapidly gaining wealth and greatness, and power on land and ocean. This is the time to establish a national game preserve in Southern Alaska, on the lines laid down by Mr. W. T. Hornaday in RECREATION. It can be done if Congress so wills it, backed by an enlightened people. It is not a party measure; but all the descendants of this nation will be heirs to Nature's living creatures. There is a great army of little folk around us developing brain and brawn, who will be here when we are gone. We should work for the children of the future.

Should the forests be swept from the earth, the birds all exterminated; should there be no joyous bird songs to awaken the slumbers of a newborn day, no tracks of game on the pathless and dreary plain, life would not be worth living.

"Well might the sun in darkness hide,
And shut his glories in."

Nature has labored for untold ages to bring forth all these glorious genera.

England has set us a good example in building wagon roads, and in preservation of forests and game. Their mounted police in British Columbia are thorough and efficient, and are doing clean work.

In many lines the average man has not advanced in intelligence since the ages when his weapons were the fire-hardened club, his skinning knife of jasper, and his ax of bronze or stone. Here in Idaho such men tell us they don't care how many laws are made to protect game and fish, they will kill all they can!

A. C. G. Slocum, Rathdrum, Idaho.

SOME OHIO HOGS.

Tiffin, Ohio.

The largest and most remarkable catch of the present game season was made yesterday by Al. W. Franklin, of the Standard Oil Company, and C. H. Bradley, secretary of the State Investment Company, both Cleveland men. They were accompanied by the Geyer Bros., landlords of the Empire hotel, of this city. In less than 8 hours they bagged 175 quails and 9 rabbits.—Toledo (O.) Blade.

I wrote these fellows, and append answers from 2.

It is true that 3 of us bagged 175 quails in 8 hours, each man shooting over his own dog. A few days later my brother and I killed 105 quails in 8 hours hunting.

Charles Geyer, Tiffin, O.

You were correctly informed as to the number of quails secured in the mentioned time. My comrades were Messrs. A. W. Franklin of Cleveland, and Chas. and Sam Geyer of Tiffin, Ohio. By the way, these men are veteran sportsmen and admirers of literature pertaining to same.

C. H. Bradley, Cleveland, O.

Bradley says "these men are veteran sportsmen and admirers of literature pertaining to same." He is entirely mistaken. They have no more sense of true sport than a cow has of music. They are simply low-down, uneducated butchers, and no true sportsman would be found in their company, with gun and dog. It is safe to say that RECREATION will not hereafter figure in the list of literature that they admire.—EDITOR.

THE MUSIC OF THE CHASE.

In January RECREATION I saw an article on coon hunting, by O. M. Arnold, which interested me exceedingly.

Mr. Arnold says he never fancied hounds for this sport, as he found them too apt to run the back track. He also says, their power of discrimination is not good. I have had considerable experience with hounds in coon hunting and have found them satisfactory in every way. I do not believe a really good hound will run a back trail far. I have a pair of well bred foxhounds which are used exclusively for this sport, and their power of discrimination is wonderful.

The reason a coon in front of a hound, be the dog fast or slow, invariably takes a large tree is easily explained. The hound, as we all know, gives tongue freely. The coon hearing this, is enabled to keep his pursuer located; and with that advantage, can usually select his route and judge his distance well. With a collie it is an entirely different matter. He follows the trail silently and does not yelp until he sights the coon. Thus the game is often taken unaware and makes for the nearest tree, be it large or small. One might possibly bag more game with a collie, but to us who love the music of the chase, give the hounds.

Marcus A. Ide, Catonsville, Md.

THE CANVASBACK KING.

A subscriber having called my attention to the doings of Tilman Lewark, called by a local paper "the canvasback king of Corolla, N. C.," I wrote that person asking if it was true that he had killed 300 ducks in a day, as reported. He replied as follows:

There is some mistake in the number of ducks I am reported to have killed; but I have made some big bags in a short time. Once I killed 101 ducks with 117 shells, which were all I had with me. Another time I shot 140 ducks in a few hours. Shooting has been fine on Currituck sound this season. If there is other information I can furnished you, I shall be pleased to do so.

Tilman Lewark, Corolla, N. C.

It is not necessary that you should furnish me any further information. Your present letter convicts you of being a disreputable butcher, and it is because you and a lot of other swine have been permitted to carry on this kind of slaughter along the North Carolina coast for years past that the ducks and geese of the whole Eastern country are now nearing total extermination. I hope your Legislature will soon enact a law that will put such brutes as you in jail and limit the number of ducks any decent man may kill in a day to 25 at the outside.—EDITOR.

TWO MORE FROM NEW JERSEY.

W. E. Horner, Jr., a game dealer, and Hansel Parker, both residents of Parkertown, N. J., said to be the best wing shots of that vicinity, recently killed 84 yellowleg plover in one day's shooting. Old-time hunters believe this is the high record for 2 men in one day's hunt.—Exchange.

To my inquiries as to the truth of above report I received the following replies:

It is true we killed 84 large yellowleg plover in one day. If you care to insert it we will get up a nice piece about it for you to publish in your paper, and we will buy a number of copies.

W. E. Horner, Jr., Parkertown, N. J.

Yes, we 2 killed 113; 84 plovers and 29 small birds. Please send me one of your papers.

Hansel Parker, Parkertown, N. J.

Thus you announce yourselves members of the great army of American game hogs. No decent man would have killed more than 15 of these birds in a day no matter how many he might have the chance to kill, and inasmuch as you have exceeded that number you have proclaimed your swinish proclivities. If after reading this you want a dozen copies of RECREATION to distribute among your friends I will gladly send them to you free of charge. Never mind the "piece."—EDITOR.

PENNSYLVANIA INTERESTED.

Though I have read RECREATION but a short time, I realize that I can not afford to be without it. Your magazine is the best sportsmen's journal published, and I have read them all. I congratulate you on your good work for the protection of game, and note with ever increasing pleasure the interest manifested in your labors. Owing to mild and open winters, together with the growing disposition to enforce the game laws, I am pleased to be able to report a noticeable increase in the number of our game birds. The woodcock, however, is gradually disappearing from the swamps where once good bags might be secured. This condition is probably the result of the pernicious law permitting the killing of the birds in July. The Lycoming Sportsmen's Association of this county, organized less than a year ago, has already secured the arrest and conviction of several persons charged with having deer in their possession over and beyond the 15 days allowed by law, the fines amounting to $100 and costs, each, for the 4 or 5 individuals concerned. We are further assured that something will be doing in this vicinity next fall.

Ermin F. Hill, Hughesville, Pa.

A MARKET HUNTER WATCHED.

In January RECREATION I saw a letter written from Lakefield, Minn., by R. C. Darr. From its tone one might suppose Darr a genuine sportsman, but he is the worst game hog I ever ran across. He became a citizen of Minnesota to escape having to pay for a hunting license, and for several years slaughtered game birds for market. When the law prohibiting export of game went into effect I heard him say, "What is the use of hunting now, when you can't get rid of the game?" Nevertheless, he continued hunting as before, shot lots of chickens, ducks, etc., and disposed of them in some mysterious way. A warrant was issued for his arrest for shipping game, but nothing came of it. Since then he has been closely watched. Abundant proof of these facts can be had.

H. R. Heath, Aberdeen, S. Dak.

Minnesota and all other States should enact laws prohibiting the sale of game at any time, even when killed within their limits. Several of them have already done this, and whenever the remaining States follow suit then the occupation of the market hunter will be gone, and the sooner the better.—EDITOR.

THOROUGHLY NATURALIZED.

When William Waldorf Astor was said to have bought Battle Abbey the English papers cruelly lacerated our feelings by calling him an American. Although the charge was totally unfounded, the humiliation of it cut deep.

But the most malicious Yankee hater on Fleet street will hardly venture to load us with Mr. Bradley Martin. Mr. Bradley Martin has been having that peculiarly British form of recreation known as a "shoot." We are informed that it was a huge success.

"The sport was excellent. In 5 days' shooting 5,504 head of game were slain, the best day yielding 1,236 pheasants and more than 1,000 rabbits."

In Chicago, visitors are taken to the stock yards to see how fast experts can slaughter hogs, but that is not called sport; it is business.

In California the farmers of a whole county sometimes have a rabbit drive, in which 20,000 jack rabbits are herded into an inclosure and killed with clubs, but that is business, too, and, besides, the jack rabbits are wild.

Anybody who turns his place into an abattoir, inviting his guests to perform the work of the hired butchers in the Chicago stock yards on 5,000 tame pheasants and rabbits is forever protected against the charge that he is an American. —Chicago American.

Even a yellow journalist like Mr. Hearst shudders when he reads an account of the principles of some of our American game hogs.—EDITOR.

PAID HIGH FOR VENISON.

Dr. Charles Bastian and Zack Clark, well-known hunters of Salladasburg, were arrested this morning, and pleaded guilty to killing deer out of season. For their illegal act Alderman Kellenbach fined them $200 and costs, which in all amounted to $232.60.—Williamsport (Pa.) Sun.

The Lycoming Sportsmen's Association is only 9 months old, but already we have secured 2 convictions for violation of game laws. The first case cost the culprit $70 for 2 rabbits killed out of season. The second case is the one mentioned in the clipping. We mean business and poachers in Lycoming county are now up against the "real thing."

W. W. Ahmbosh, Williamsport, Pa.

Another case in which venison proves high living. Dr. Bastian and Mr. Clark could have bought beef enough for $232.60 to last both of their families a whole year. They will probably be perfectly satisfied with good domestic meat in future.—EDITOR.

TOO MANY QUAILS.

Offerman, Ga.—J. C. Brewer, of Waycross, J. H. Bynum, of Offerman, and H. G. Williams, of Liberty City, went shooting here to-day and returne dwith 286 quails. They had Mr. Brewer's 2 dogs from Waycross.—Savannah (Ga.) News.

To my inquiry regarding the truth of above report the following reply was made:

There was an error made by the reporter in stating that 2 friends and I killed 286 quails in one day. We bagged 106. Of course we killed a good many that were left on the ground. We expect to take another hunt soon, and I will advise you of results, if desired.

J. H. Bynum, Offerman, Ga.

That was twice as many as you should have killed. If you had been reading up-to-date sportsmen's literature the past few years you would have known that all gentlemen who shoot quails quit, nowadays, when they get 10 to 15.—EDITOR.

DOVE KILLING IN GEORGIA.

There was a lively contest at shooting doves by Moultrie sports Wednesday morning. Two parties went out to different plantations and strove for the largest number of birds. One party went down to Mr. George Suber's plantation, near Suberdale. They were joined in their shoot by Mr. Suber and other local sportsmen. They found doves in sufficiently large numbers to begin with, but after 2 hours' shooting the birds left the fields. The men killed between 350 and 400. Another party went down to Murphy and engaged in a big shoot on the Murphy plantations. The shooting was lively here, also, but lasted only a short while. This party bagged about 300. The sportsmen claimed it was not a good day for shooting doves.—Moultrie (Ga.) Observer.

The editor of the *Observer* should learn to call things by their right names. When he applies the term sportsmen to such contemptible game hogs as these, he insults every real sportsman in the country. This editor should read RECREATION and learn something of modern English before he undertakes to report another side hunt.

GAME NOTES;

The county of Digby, Western Nova Scotia, is not exactly a poachers' paradise. Major John Daley and Edmund Jenner, agents for the Game Society of Nova Scotia, have been after the poaching fraternity. January 9th, a fine moose carcass was seized, condemned as contraband, and sent to the county poorhouse. January 22d, Agent Daley received word that Abram Ivney, an Indian, was on his way to Digby with moose meat illicitly killed. While Major Daley was overhauling the freight consigned to St. John, N. B., Agent Jenner took a look around the town, and discovered Ivney with a bag of fresh moose meat. The magistrate considered that 30 days in jail would be about the correct thing and Abram is now enjoying it. January 25th a hotel keeper was fined for having bought moose meat in close season.

E. Jenner, Digby, N. S.

Quails, grouse, ducks and deer are much more plentiful here than they were 3 years ago, showing the good result of stringent game laws. There can, however, occasionally be found an editor, too indolent or too poor a shot to bag any game for himself, who bewails the absence of an opportunity to laud pot hunters. To that sort of editor the game laws of Wisconsin seem a farce and a scheme of the city-bred fellow and the rich to corner the hunting and fishing. No one who ever carried a rod or a gun with any regard for the future supply of game takes any stock in this editor's wrong theories, and the good work goes on. Sportsmen see more and more the need of laws for game protection, and will continue to work for their further enactment.

T. W. Borum, Barron, Wis.

What kind of game can be found in the vicinity of Jennings, Calcasieu county, Louisiana? R. M. K., Chicago, Ill.

ANSWER.

Along the coast of the Gulf of Mexico, from New Orleans to Galveston, Texas, quails and gray squirrels can be found. Between New Orleans and Orange, Texas, can be found snipe and all kinds of ducks, more especially between La Fayette and Orange, where the rice fields offer them rich food throughout the year. Between New Orleans and the Texas line are vast swamps, or marshes, where many black bear and deer are hunted and killed every season. Fish and oysters of all kinds are plentiful in that territory.—EDITOR.

In your battle with the fish and game hogs do not get discouraged. You are putting up a fight in which you have the best element of the nation with you, and one which will leave your name in honor long after you and I are gone. Coarse, selfish men have to be roughly dealt with. Hercules had to club down the heads of the hydra and then have his servant sear them with a hot iron to keep them from sprouting again. This kind will not sprout; they will hide, and another generation will not know them. The lowest class of men I have ever met are those who shoot for the market. Boone, Lewiston, N. Y.

In printing one of my letters in May RECREATION you credit me with saying that meadow larks are "larger and more difficult of approach late in the season than any of our game birds." This is an error. The word "many" should take the place of the word "any." Kindly correct this or I shall have to undergo a medical examination as to my sanity.

A. L. Owen, Keating Summit, Pa.

Squirrels, rabbits and quails are plentiful here. A few pheasants have been turned loose in our part of the country, but their increase has been retarded by the hard winters we have had the past 3 years.

G. L. Linkhart, Pt. Williams, O.

My home is in a good country for hunting and fishing. Our duck shooting is especially good. Should like to learn where I can find good prairie chicken shooting.

C. M. Palmer, Madison, Wis.

Red foxes are abundant in this vicinity. More than 20 were shot in Jefferson township during the first 2 months of the season. E. O. Wickersham, Zanesfield, O.

We had plenty of small game last season. Quails were more abundant than for years before.

J. N. Dodd, County Line, Ia.

Quails wintered well and are abundant. We shall certainly have fine sport here this fall.

H. J. Duke, Shippensburg, Pa.

Two men went about 15 miles East of here and shot 63 rabbits and 88 quails in one day. C. G. Fisher, Piqua, O.

Quails got through the winter nicely; if nothing happens, they will be thick next fall. J. H. Crist, Covina, Cal.

Quails were unusually plentiful last fall for this place, and wintered well.

J. Dickson, Durham, N. H.

ALMANAC FOR SALT WATER FISHERMEN.

The following will be found accurate and valuable for the vicinity of New York City:

Kingfish—Barb, Sea-Mink, Whiting. June to September. Haunts: The surf and deep channels of strong tide streams. Baits: Blood worms, shedder crabs and beach crustaceans. Time and tide: Flood, early morning.

Plaice—Fluke, Turbot, Flounder. May 15 to November 30. Haunts: The surf, mouth of tidal streams. Baits: Shedder crabs, killi-fish, sand laut. Time and tide: Ebb, daytime exclusively.

Spanish mackerel—Haunts: The open sea, July to September. Baits: Menhaden, trolling—metal and cedar squids.

Striped Bass—Rock Fish, Green Head. April to November. Haunts: The surf, bays, estuaries and tidal streams. Baits: Blood worms, shedder crabs, Calico crabs, small eels, menhaden. Time and tide. Night, half flood to flood, to half ebb.

The Drums, Red and Black. June to November. Haunts: The surf and mouths of large bays. Bait: Skinner crab. Time and tide: Day, flood.

Blackfish—Tautog, April to November. Haunts: Surf, vicinity of piling and old wrecks in bays. Baits: Sand worm, blood worm, shedder crabs, clams. Time and tide: Daytime, flood.

Lafayette—Spot, Goody, Cape May Goody. August to October. Haunts: Channels of tidal streams. Baits: Shedder crabs, sand worms, clams. Time and Tide: Day and night flood.

Croker—July to October. Haunts: Deep channels of bays. Baits: Shedder crabs, mussels. Time and tide: Day flood.

Snapper—Young of Blue Fish. August to November. Haunts: Rivers and all tide ways. Baits: Spearing and menhaden; trolling pearl squid. Time and tide: Day, all tides.

Sheepshead—June to October Haunts: Surf and bays, vicinity of old wrecks. Baits: Clams, mussels, shedder crabs. Time and tide: Day, flood only.

New England Whiting—Winter Weak-fish, Frost-fish. November to May. Haunts: The surf. Baits: Sand laut, spearing. Time and tide: Night, flood.

Hake—Ling. October to June. Haunts: Open sea surf, large bays. Baits: Clams, mussels, fish. Time and tide: Day and night, flood.

Weak-fish—Squeteague, Squit. June to October. Haunts: Surf, all tideways. Baits: Shedder crabs, surf mullet, menhaden, ledge mussels, sand laut, shrimp. Time and tide: Day and night, flood preferred.

Blue Fish—Horse Mackerel. June to November 1st. Haunts: Surf, open sea and large bays. Baits: Menhaden, surf mullet and trolling squid. Time and tide: Daytime; not affected by tides.

ANGLING ON SNAKE RIVER.

Lewiston, Ida.

Editor RECREATION:

Of all fresh water fishes none affords the angler more royal sport than does the Columbia river salmon. Its size, cunning, vitality and courage have made it the most famous of game fishes.

The most generally known species is the Chinook, although there are several other varieties in this river; for instance, the steelhead, the blueback, and the dog salmon. All enter the Columbia from the ocean twice during the year, in early spring and in fall. Those fish that are successful in passing the many thousand nets and fish wheels which line both banks of the river for many miles, keep on up stream, becoming more wary as they advance. Though they breast the rapid current of a rough, rocky river in their long journey to the headwaters or spawning-grounds, they take no food after leaving the salt water. Nevertheless, they are generally fat and in good condition when caught.

Only one of the species mentioned, the steelhead, will take a hook, annd then only when it is baited with salmon spawn. This fish is as fine as any and weighs 10 to 35 pounds.

Even when the fish is well hooked, a lone angler can rarely land it, consequently he needs a companion. It is usually a waste of time to try for the steelhead before the first freeze-up. The lower and colder the water the better salmon take bait, and if there is floating ice the chance of success is increased. If an angler drags the river a mile every day for a week without landing a salmon, he need not despair. His time will come when the school comes, and then the fun begins.

About 160 miles above the mouth of the crooked, rocky Snake river, a tributary of the Columbia, there stands on a large sand bar 30 feet above low water mark, the city of Lewiston, Idaho. A mile above the city, where deep water runs slowly around a rapid, is a favorite fishing ground. There, during January and February, may always be found a number of boats, floating with the current over the pool. In each boat will be 3 or 4 men, all but one armed with 20-foot bamboo poles, large 100-yard lines and reels. One man must stay by the oars, keeping the boat headed up stream and ready to stop it if a hook is snagged. When a strike is made there is a pull, a swish, and the salmon leaps 10 feet in air, the line cutting the water like a knife. The oarsman makes for the shore; the angler holds his pole straight and his line taut. The fish lashes the water into foam. Gradually he tires, and little by little is coaxed nearer shore. The oarsman takes the gaff and leans over the gunwale to strike; often only to frighten the steelhead into another and successful rush for liberty.

A new lead sinker of about 4 ounces in weight, with swivel, is attached to the end of the broken line. Also, a 3-foot, 4-ply gut leader, and a quadruple-snelled tarpon hook, on which an ounce of spawn is carefully but loosely wrapped with silk thread. The boat is rowed to the head of the pool again for a new start. If fish are biting well a new strike is soon made, and there follows a tug, a swish, the same character-

istic leap, splash and run. The fish is gradually brought alongside after the boat is at the shore. The gaffsman strikes and the quarry is landed. W. E. Bramel.

FISH SUFFER LITTLE.

I have fished ever since I can remember, without thinking how much suffering is caused by using live bait. Last summer, as I was going with a bucket of minnows to fish, a man spoke to me and showed me so plainly the suffering it would cause that when I got to the river I emptied my bucket and said I would never again use live bait. Would it be possible for the S. P. C. A. to stop the use of live bait? Why have they not done so?

Persons making their own flies will find that the hair of a ground hog, or woodchuck, as they are called, is excellent to use instead of feathers. In can be colored, if desired.

Another thing I have used with success is a pork rind minnow. Catch a live minnow, skin it carefully by splitting down the underside, stretch the skin carefully over the pork rind and you will have a minnow that will fool any fish, though it takes lots of pains to make one nicely. This is a good thing, especially for crappies.

John A. Cooper, Delaware, Ohio.

You are mistaken in thinking it cruel to hook a minnow, a frog or a fish. It has been clearly demonstrated by scientists that these lower orders have little sense of pain. There are hundreds of authentic records of fish having been hooked; having broken the line or leader; and after a few minutes or a few hours the same fish having taken another bait or fly; and when taken from the water the first hook has been found firmly imbedded in the jaw with the piece of line or leader attached. There is one case on record of a perch having been hooked, and of the hook having passed through its eye. When the fish was taken from the hook the eye was pulled out and hung on the hook, the fish, which was small and worthless, being returned to the water. The angler, realizing that this would probably make a good bait, cast again with no other bait than the perch's eye. Within a few minutes he had a bite, pulled up and landed the one-eyed perch he had lately taken from his own hook. This proves conclusively that this fish felt little or no pain at the loss of an eye. Nearly all old anglers have had similar experiences.—EDITOR.

MUSKALONGE HATCHING.

As I intend to start a muskalonge hatchery here, if it is possible, I should consider it a favor if you would tell me what you think my chances would be for selling muskalonge fry at a fair price. What would you consider a fair price per 1,000, delivered. I should have to start on a limited scale.

H. R. Field, Indian River, Mich.

ANSWER.

The New York State Fish Commission has for some years been hatching muskalonge in large numbers at Chautauqua lake. The Wisconsin Fish Commission has also done something with the muskalonge. As the various State Fish Commissions are in the habit of furnishing fry and eggs to one another and to people of their respective States who wish to stock private or semi-public waters, it is not certain but they will be able to fully supply the demand. Whether a private hatchery would prove a financial success is a question. However, the expense of equipping and operating such a hatchery would not be great and the experiment is well worth trying.

Information regarding the muskalonge may be found in the following: The various recent reports of the New York Fish Commission; report of the Wisconsin Fish Commission for 1899-1900; The Fish Cultural Manual, published by the U. S. Fish Commission, which may be obtained by applying to your Congressman; and "Notes on the Fishes of Lake Chautauqua," which may be had by addressing the U. S. Fish Commissioner, at Washington.—EDITOR.

WHAT WILL THESE TROUT TAKE?

The last 2 springs I have succeeded in taking from a small lake in Delaware county, this State, brook trout weighing one to 2½ pounds each. While this fact may not be unusual, the circumstances connected with trout fishing at this particular place are. The ice leaves, or melts, about the time the trout season opens, and for a week or less thereafter trout may be caught with bait. After that time no one has succeeded in capturing more than one small trout, and then only occasionally. After a month, however, none are caught. Anglers have tried numberless schemes to take trout during the later season, but have not succeeded. Can you or some of the readers of your magazine suggest some way to overcome this difficulty? When I was there last spring the natives were discussing the feasibility of stocking the lake with bass. That, in my opinion, would mean extermination of the trout. If some means could be found for catching the trout later in the season, probably no such plan would be carried out.

A. D. D., Binghamton, N. Y.

STOCK WITH NATIVE FISH.

Our Fish and Game Club wishes to restock a small inland pond near here, having

many lily pads, muck bottom and shores, with a little clay at one end, and now containing speckled large and small mouth black bass. Can you give us any information as to what fish would be best to put in this pond; also what varieties of salt water fish can be best propagated in such a pond?

C. E. Trory, Hudson, Ohio.

ANSWER.

The fish already in the pond are the best that could be put in it. Salt water fish will not live in fresh water ponds. The best thing to do is protect carefully the 2 species of black bass already in the pond. If at any time fish are desired to restock the pond apply to the U. S. Fish Commission, forwarding the application through your member of Congress.—EDITOR.

NIBBLES.

The past season found game in the Puget Sound country none too plentiful, which leads me to believe that the game laws need revising. Ducks were especially scarce, due, some claim, to the mild, open winter. The open season on ducks and other water fowl is from August 15th to March. If it were made September 1st to January 31st, hunters would get better shooting, and the birds would not be so wild. There was no open season on quail the past 3 years up to October 15th last. But they, too, need careful consideration from the Legislature. Some good work has already been done, no game being allowed to be sold, except water fowl, during October, to the number of 10. A license fee of $1 is charged in each county. As to trout fishing, Washington can boast of as many and as fine trout streams and lakes as any State.

R. A. Leeman, Seattle, Wash.

A minnow has lately appeared in our lakes, and I am unable to learn its name. When alive and fresh they are entirely transparent. Can you inform me what they are?

John W. Zimmerman, Cosperville, Ind.

ANSWER.

This little fish is the skipjack, *Labidesthes sicculus,* an abundant species in all the small lakes of Northern Indiana. It usually swims in large schools and always near the surface. On sunny, quiet days in fall and early winter they may be seen in great numbers near the shore. It is a delicate little fish, dying quickly, and is of little value as bait. It is our only fresh water member of the *Atherinidae*, or silversides, a large family of small salt water fishes.—EDITOR.

One cloudy day in April Howard Woolverton, Lansing Callan and I rowed up the creek which runs through the fields and woods near Valatie. After we had gone some distance our boat ran against something in the middle of the creek. We backed off with the oars and found the obstacle to be a stake in the middle of the stream. On looking farther we saw 2 similar stakes, and when we looked down into the water we saw a net stretched across from one side of the creek to the other. We knew this was in violation of the fish laws, so we pulled up the stakes and threw the net on the bank. We all try to live up to the game and fish laws.

Kenneth E. Bender, Albany, N. Y.

In an issue of RECREATION last fall I spoke of the excellent black bass fishing in the Delaware river. Since then I have received a number of letters asking for further information as to location of best fishing spots, distance of river from New York, etc. Generally no stamp for reply has been enclosed. If anyone interested in angling for this gamy fish in waters affording good sport, near New York and Philadelphia, will enclose stamp I will be pleased to answer all inquiries promptly, give full directions how to reach these black bass grounds, and all information necessary to make a successful fishing trip at scarcely any expense.

M. L. Michael, North Water Gap, Pa.

Baldwin, Mich.—Andrew Johnson, of Luther, was brought to the county jail to serve 30 days for violating the fish law. Under-Sheriff Filio saw the man draw lines which had been set through the ice in the mill pond and take fish therefrom. When Johnson returned to the village Filio placed him under arrest. The man denied the charge and made a resistance which would have terminated in his escape had not help arrived. Johnson was handcuffed and taken to the prosecuting attorney's office, where 2 trout were found in his pocket, which he claimed were perch. —Detroit Free Press.

By the time Andrew Johnson gets out of jail he will probably conclude that it does not pay to violate the law even for the sake of getting a few pounds of trout to sell.—EDITOR.

Why will the bass not bite in Higgins lake, Roscommon county, Mich.? We have tried every way known, but have never been able to catch a bass. There is no doubt of their being there, as I have seen the natives spear any number of them, but that is not my way of fishing. The lake is 9 miles long, 3½ wide, and over 100 feet deep. The water is so clear that the fish can be seen at a depth of 25 feet.

Wallace Schaum, Hartford City, Ind.

Can anyone answer?—EDITOR.

Trout can be seen by thousands, as they are still in schools. If you were here I could show you a sight that would gladden the heart of any sportsman, and that is a bunch of trout within 100 yards of town. There are at least 5,000 in the bunch, ranging in length from 8 to 13 inches. None were caught there during the close season.

A. L. Smith, Kingston, Idaho.

Edward Swanson, John Smith and J. Johnson were fined $80, $130 and $110, respectively, by Justice Palen, at Smethport, Tuesday, on a charge of catching trout that were under size. The men were fined the limit, $10 for each trout caught, and in default of the money will be required to serve a day in the county jail for each dollar imposed by the justice. It is said that the various trout streams in the county will be closely watched during the present season, and that legal proceedings will be instituted against all violators of the fishing laws.—Bradford (Pa.) *Era.*

I see that in June RECREATION Mr. George Parnell, of Philadelphia, asks for information in regard to good black bass fishing within 80 miles of Philadelphia. If Mr. Parnell will let me know his postoffice address I will give him the information he seeks.

M. L. Michael, North Water Gap, Pa.

Fishing is good here. A native named Howe was fishing in McDonald creek in April and caught 6 rainbow trout weighing 12 pounds. The largest weighed 3½ pounds, and was 20 inches long. I saw many of these trout, but that was the largest. Frank Liebig, Belton, Mont.

I should like some reader of RECREATION to give me some information about the fishing along the coast South of Tampa, Florida, the best place and time to fish, the kind of fish, tackle, etc. Any information will be appreciated.

C. S. Perry, Menlo, Ga.

Will you or some of your readers kindly tell me if it is feasible to cover a clinker-built boat with canvas, and, if so, how to do it.

RECREATION is the best sportsman's periodical extant.

Gaylord T. Young, Cannonsburg, Mich.

Mr. H. C. Wurtsbaugh, Richmond, Ohio, will find good fishing in the Muskingum river, about 45 miles East of Columbus, in Coshocton and Muskingum counties.

H. H. Deane, Mingo Junction, Ohio.

Will some of the readers of RECREATION tell of their experience with automatic reels? I wish to buy one and want only the best.

L. C. Hughes, New Castle, Pa.

THROUGH THE BRUSH.

MRS. J. L. BROCKWAY.

About 8 years ago my husband and I took up a homestead claim in Routt county, about 14 miles from Steamboat Springs, the well known summer resort. At that time deer were abundant in those parts. Elk also could be found frequently, and occasionally small bands of antelope, feeding in the little parks among the hills. In one of these parks I saw a deer feeding one evening when I was out on my first hunting trip. It was a large 4-point buck, but too far away for me to be certain of killing him. I decided to follow a small stream down until I should get within closer range.

Moving cautiously and keeping myself hidden behind the thick willows that grew along the stream, I crept carefully along until I was within easy range of him. I then stepped softly out from behind a large willow to take aim at my deer, but just at that moment he scented me. With his fine antlers thrown high in the air he gave one graceful bound and was off. For an instant my heart sank, but as I watched him disappear in a grove of aspens, I started on again, that time following a small gulch until I came to the top of a low ridge. The brush was high and the aspens were thick. As I stopped to look and listen, I saw what I thought was a deer, peering through the trees and brush at me. I stood quiet a moment until I saw one ear move. Then I raised my rifle and took steady aim at the only spot I could see clearly. I pulled the trigger; then in another instant I was at the deer's side. He was a large 2-point buck and I had shot him squarely in the middle of the forehead.

Then came the task of dressing my prize. It was not to my liking, but I saw no way out of it. I started my work, but at that moment my husband, having heard the shot, came to my rescue.

EVOLUTION.

W. B. CLARK.

Tad-pole, tad-pole,
  Nothing to do but eat!
Wait, I pray, a little,
  You'll see his lively feet.

Pollywog, pollywog,
  Tail, but not a wing!
Wait until his tail is gone,
  Now, listen to him sing!

"Cr-o-o-a-k!" But, Oh! a fisherman
  Has him on a hook!
Splash! And now a pretty bass
  Is ready for the cook.

GUNS AND AMMUNITION.

Anybody can keep shooting all day, but it takes a gentleman to quit when he gets enough.

THE GUNMAKERS AND THE PICTURE BOOK.

Once there were several rich men, who lived in town when it was nice weather. These men liked to have something going on, so they made guns and things. In another town there lived a plain chap, who published a picture book called RECREATION. The book also contained lots of stories, and was printed for the benefit of sportsmen and all others who could appreciate a good thing. For a long time the rich men advertised their wares in this picture book; then all of a sudden they got mad and quit. And this is the way it happened: One day a misguided sportsman, who didn't know it was loaded, wrote to the editor of the picture book, and said that the ramrod of the Snarlin rifle was no good, and that the gun leaked cartridges. Now this was quite true, and more than 27 other sportsmen knew it. Well, the editor published this letter. He had to, you see; for all good sportsmen have a right to say things in their picture book.

But did Snarlin thereafter equip his rifle with a better ramrod, and did he fix up the leaky places in the gun? No, he just got up on his hind legs, and used bad language. He told the editor of the picture book to stop the Snarlin ad right off quick. He said he would advertise his guns on the fences and on big stones along the country roads before he would longer patronize such a rank outfit as the picture book. He also said he wouldn't play shinny in the print-shop yard any more. But the editor only said, "All right, Hank; just fly your kite as quick as you want to, and keep going Southwest by North till you get home." Then Snarlin went to his shack, and got up a little yellow almanac, which said that the editor of the picture book was a humbug of the first water. These almanacs Snarlin gave away by the wagon load, and the country boys were glad of it. They used the little yellow books for gun wadding, and to smoke out woodchucks.

Did the editor of the picture book tear his hair and fall in a fit over what the gun man said? Well hardly! He just said in a loud voice to the sportsmen everywhere, "Come on, boys!" and the boys came on a-flying, and subscribed by thousands for the picture book. This boosted business so that the editor had to rent another typewriter and hire an extra hand to help work the printing press. The picture book became more popular than ever, and the gun man said he'd be essentially cussed if he could see why it was. Then he got mad again, and printed another almanac. This last almanac contained a whole lot of language, and the small boys used it to smoke out more woodchucks.

Well, things ran along all right for a while, and the world didn't come to an end at all. The picture book circulated all over the country. It also went to lots of places away from home. Folks said it was a hummer. Then one day a sportsman wrote the editor as follows: "Dear Sir.: I was out shooting a week ago last fall, and wishing to load my gun, I put my hand into my pocket for some Skeeters shells, but found I had left my ammunition at home, so the cartridges were no good for my gun that day." The editor published the forgetful man's story, and Skeeters stopped advertising in the picture book, saying that he just wouldn't stand it to have his cartridges run down in that way. Again the editor said, "Come on, boys!" and again the boys came on with lots of subscriptions.

And yet once more a sportsman wrote a letter saying that he had intended to buy a Weevens rifle, but failing to find the Weevens ad in the last issue of his picture book, he had purchased a different breed of rifle, and had found it all right. Then a Mr. Rage, who works in the Weevens foundry, laid down his shovel, took his pipe out of his mouth, and said a lot of cross words to everybody in sight. Those were busy times all around.

For a third time the editor called to the boys to come on, and this time they came on so fast that he had to buy a new book in which to write down all their names. The picture book boomed as it had never done before. Everybody wanted it. This was pretty tough on Snarlin, Skeeters, Weevens & Co., and they just stood around and made faces at the sky. Then they cussed some more, and wished the pigs had eaten them when they were small.

Moral: When a man starts in to do up a picture book, he wants to be sure that the publication has no backing.

A. L. Vermilya, Columbiaville, Mich.

COMMEND THE 20 GAUGE.

In reply to E. C. Statler and others: I have a Lefever ejector 20 gauge which I used last season. Its light weight and slight recoil make it a most desirable gun for upland shooting. A gun 6¼ pounds in weight can be carried all day without fa-

tigue. The barrels are 28 inches. Right, modified; left, full choke. Load, 2¼ drams Shultze and ¾ ounce Nos. 6 or 7 shot. With such a gun quails or grouse may be shot at 20 to 40 yards without being cut to pieces, as often happens with a full choke 12 gauge. The 20 gauge seems just as effective as a 12 gauge. The lighter gun appears to have the best of it in the brush, while the 12 gauge, with its closer pattern, gives more time for deliberate shots in the open. The 20, with ⅞ ounce of shot, gives good results at target thrown from a Magan trap. I see the Remington people advertise 24 and 28 gauge guns. These should be nice, light little guns, but would have to be held near the right spot, as the spread of shot would be still more limited than with the 20 gauge. F. C. King says he loads his 16 gauge with ⅞ ounce of No. 1 shot and kills woodcock at 40 to 55 yards. When I used a 16 I loaded with one ounce of No. 7 or 8 shot for woodcock and snipe.

Hewlin, Shamokin, Pa.

E. C. Statler wishes to hear from sportsmen who have used 20 and 28 gauge guns. I have used the different gauges from 10 to 44, and find a 20, 24, 28 or even 44 effective for squirrels, grouse, quails, rabbits and woodcock. I think it better to have them cylinder bored. I am using a 44 gauge now, and have killed with it rabbits at a distance of 6 rods. I use a brass shell loaded with 2 drams black powder and ½ ounce No. 8 shot, and can kill a bird, squirrel or rabbit 5 or even 6 rods nearly every time. I like the 24 and 28 gauge better, as with them I can use paper shells and nitro powder. Parker Bros., who advertise in RECREATION, manufacture guns as small as 28 gauge, and they are beautiful arms. The Lefevre Arms Company makes guns of 20 gauge and larger. I have been a reader of RECREATION 5 years, and regard it as the best sportsmen's journal published. It is doing wonders for the preservation of our game.

Dr. E. F. Preston, Ticonderoga, N. Y.

Tell E. C. Statler, Grand Island, Neb., and G. C. G., Indian Head, N. W. T., that I have as a knockabout gun an Acme Davenport 20 gauge. They are advertised in RECREATION. Our expert gunsmith, Dan Gerhart, put an old fashioned egg-choke in the barrel. This improvement has made the gun a powerful little arm. At the trap I have done 80 per cent shooting on blue rock targets at 12 yards rise. Use Winchester repeater shells, with No. 6 primers, 2¼ drams of DuPont smokeless powder and ⅞ ounce No. 7½ chilled shot. In the field use ¾ ounce of No. 8 chilled shot.

M. L. Herbein, Reading, Pa.

THE MERITS OF SEMI-SMOKELESS.

For the sake of Brother Stubb, of Oswell, Ohio, and others, I want to answer his question in January RECREATION, regarding semi-smokeless.

Our Mr. Worden won the King tournament trophy last February, with a score of 25 straight, at Blue Rock targets, unknown angle, using 2½ drams of semi-smokeless in brass shells. He made the only straight score, and was the only man using semi-smokeless exclusively. The boys here are well pleased with semi-smokeless for trap and field use. It is a splendid load at a moderate price; and as a rifle powder our experts consider it unequaled. As a result of repeated tests, would say that ffffg. is best for trap work at targets, as it is quickest. The fffg. is better for field work, for though a trifle slower, it is a harder hitting load at long range.

Always use black powder primers with it, as nitro primers set it off too quickly, causing excessive recoil. Semi-smokeless appreciates good thick elastic wadding, and plenty of it; though it can be used successfully if wadded as you wad for black powder. Would advise Brother Stubb to use one nitro card wad, 11 gauge, and 2¼ inch nitro felt wads 10 gauge, in his No. 12 brass shells, over powder; thin wad over shot. He would do well to begin with a scant 2 dram load, and work up by experiment to the best load for his particular gun.

As he is perhaps already aware, semi-smokeless is the discovery of our old friend Milt Lindsley, which should be enough for those who knew and admired his earlier product, the old American wood powder.

E. L. Tiffany, M.D., Wilson, N. Y.

I noticed an inquiry from Stubb, Orwell, O., about a semi-smokeless that could be used in brass shot shells. Here is a load that will give the best of results in brass shells, and will do them no more injury than black powder. Use new shells, or old ones will do, if they can be made perfectly clean. Take a thin tube about 3½ inches long, the size of an ordinary lead pencil, and place it inside shell, over the primer pocket. Put 12 grains fine grained black powder into the tube; DuPont is good. Then put into the shell outside the tube 2½ or 2¾ drams (black powder measure) of DuPont shot gun smokeless. Remove the tube, and wad as an ordinary smokeless load with one cardboard and 3 black edge. Give powder only a snug hand pressure. This load will work equally well in paper shells. Any primer will do. If any readers of RECREATION try this load, I shall be glad to hear how they like it.

O. E. Raynor, Meadville, Pa.

REMINGTON VS. STEVENS.

In the February issue of RECREATION Mr. Stokes speaks favorably of the Stevens people as contrasted with the Remingtons of the old régime, and, while he admits the courteousness of the new management, he says: "I fear it is too late to regain their old place, even with that most excellent and most beautiful repeater, the Lee-Remington, which they now place on the market." I have had some experience with the Stevens Favorite. It has their Ideal action, lever, link, and breechblock, and is presumably as well made and as durable as the same action on one of their larger and more costly rifles.

A friend asked me to get him a rifle. With full knowledge of the accuracy of the Stevens weapons, and an abiding faith in the excellence of their mechanism; allured, too, by the cheapness of the arm, I bought him a Favorite. We set up a target and proceeded to try the acquisition. As my weapon I had a Remington No. 4, which I had bought a year earlier for my boy, who had loaned it to a juvenile friend, who, after shooting it with black powder shorts until it was as foul as a pigsty, set it in the stable for a month. When I got possession of it, it was a discouraging proposition, but I put in a half day of hard work with the wiping rod and hot water, and at last got it into shape for use.

This I pitted against the little Favorite. The latter had all the famed accuracy of the Stevens output and a delicacy of trigger which made it a delight to use, and my friend was soon handling it in great style. Bulls-eyes and centers were in order at 25 yards, off hand.

For a time my friend was the happiest man in Maryland. Presently, however, the lever began to droop, and hang loose. The manufacturers gave instructions, in such cases, to tighten, or loosen, I forget which, a screw in the extension of the breechblock. This helped matters for a time, but it had soon to be done again, and as age grew on the gun it became more and more clanky. The screw would work back again into the droopy place at once.

At last he grew discouraged. I took the little rifle off his hands, made him a present of a .25-20 repeater, and disposed of the Stevens elsewhere. It is in good, careful hands; its present owner can make a bulls-eye look like 30 cents; and the accuracy of the rifle is up to the high standard of the Stevens goods. Its former owner, still desiring a 22, has bought a Remington No. 4, and is happy again.

W. H. Nelson, Washington, D. C.

OLD WEAPONS AND A NEW ONE.

In April RECREATION A. Kennedy, Missoula, Mont., describes a peculiar rifle with straight grooves, and asks if any reader has seen a similar gun. In reply, I will say that such weapons are known as straight cut rifles, and were once much used and well liked for their accuracy, hard shooting and small powder charge. Both shot and round ball can be used in them. They were noted as close shooters with shot, and were much used at shooting matches.

I have one of those rifles which my father used as a match and squirrel gun. It has a 5-foot octagon barrel, on rifle stock, and was made by J. Baer, but where I can not say. It was originally a flat lock, altered to percussion, and was my first rifle. The stock extends the full length of the barrel. There are 8 grooves. It uses about 60 balls to the pound. Guns of this class, together with the smooth bore, were made by Lehman, Gompf, Eichholtz and several other gunsmiths of Lancaster, Pa.

I have another gun, known as a 2 groove rifle. It is a double barrel express, muzzle loading, percussion, made by I. Blanch Sons, London, England. The material is of the finest, the finish artistic, and the locks clear as a bell. It weighs 7½ pounds. The barrels are 28 inch, and there are 2 sets; one rifled with 2 grooves and the other bored for shot. The grooves of the rifled barrels are ¼ inch wide and 1-16 inch deep, and have a slow twist. The balls used are both round and conical. The conical balls have on the sides at the base 2 wings, which fit into the grooves, and the spherical ball has a zone or belt entirely around its circumference for the same purpose. The round balls are 10 to the pound and the conical balls 8. The bore is about 14 gauge.

I have lately come into possession of a Mauser automatic repeating pistol made in Spain. It is graceful and elegant, with a 4 inch barrel, nickel plate, blued body, receiver and base, and pearl stock. I have found it not entirely satisfactory, as it does not always discharge, and a cartridge sometimes flies from the top of the magazine. Neither does it always extract as it should.

E. E. Stokes, New York, N. Y.

PREFERS THE SAVAGE.

L. G. S., of Brooklyn, asks in September RECREATION if the Savage rifle ever balks. When Winchester cartridges are used it will balk. The Savage rifle cartridges made by the Winchester Co. are longer than those made by the U. M. C. and Savage companies. With cartridges manufactured by or for either of the last 2 named firms it is absolutely impossible for the Savage to clog, whether working the lever fast or slow. I have repeatedly tested the extracting properties with other

repeaters, with results in speed and certainty of action in favor of the Savage.

In answer to the query, is the Savage .303 better than the Winchester 30-30, I say yes, both in power and accuracy. The Winchester 30-40 more nearly approaches the Savage in execution. However, there is a 30-30 Savage. M. L. Parshall, of Chesaning, Mich., writes of a fault of the Savage rifle which I have not found to exist, namely, that the soft point bullet will not penetrate bone. I have used the Savage to kill horses and large dogs and never failed to penetrate any portion of the skull I chose with a soft nose bullet. I once shot a buck at 200 yards with a soft nose bullet, which smashed the shoulder and passed out of the animal's breast. I saw G. W. Powers, of Thomson, N. Y., shoot a large doe while running, with a Savage rifle, using a soft nose bullet. The ball struck the animal back of the left ear, splitting her head completely.

If suitable ammunition is used with the Savage the results will leave nothing to be desired. I have owned and shot Winchester, Ballard, Remington and Stevens rifles, and while they are admirable in many ways, I think the Savage is the best. While the selection of a rifle is largely a matter of personal preference, no one will make a mistake who buys a Savage.

W. B. Webster, Schuylerville, N. Y.

RECOMMEND NO. 44 STEVENS.

After a lifelong experience in the gun business and after using all calibers of Stevens No. 44 Ideal rifles I advise W. S. Mead to buy the 25 Stevens. It costs less and has as much killing power as the 32, with a much flatter trajectory. I have shot geese through and through with it at 250 yards. I find the Stevens the best all around gun I ever used. I prefer U. M. C. ammunition, although the Winchester smokeless is good. I have hunted most kinds of game and for small game prefer the 22 long rifle. For large game I have never used anything equal to the .303 soft point Savage. That gave me the best results on bear and deer. I have no use for the Marlin. I have owned 3 and have repaired hundreds and never saw one that would not stick just when most needed.

H. C. Clippinger, Akron, O.

In answer to M. S. Mead, Woodstock, N. Y., I would say that I use a Stevens Ideal No. 44, 32 rim fire rifle, and am much pleased with it. I do not use either the long or the short cartridge. Both are inferior to the 32 long rifle, inside lubricated. With that cartridge I have done good work at about 440 yards. I have shot pigeons at 100 yards without raising the sights at all.

Allyn Tedmon, Ridgefield, N. J.

Answering W. S. Mead, Woodstock, N. Y., I have a No. 44 Stevens 28-30, which I consider one of the finest shooting guns I ever saw. No gun will do more than fairly accurate work using the 32 caliber rim fire cartridges. They can not be depended on for close shooting over 100 yards. The 22 long rifle and the 25 rim fire are much more reliable.

Garvey Donaldson, Macksburg, O.

ANSWER REPEATER,

Repeater, of Jamestown, N. Y., asks as to the necessity of using wads over and under ball in an old army revolver. I have a 44 army revolver, 8-inch barrel, weighing 3 pounds. I use 40 grains Du-Pont f.f.g. powder, without wads of any kind. The balls, round, 140 grains, conical 211 grains, fit the chamber so tightly there is no escape of gas. Recently I fired 36 shots at 50 yards. All were placed within the diameter of a dinner plate. A saucer would have covered most of them. The balls will penetrate 3 inches of wood at 50 yards, and are accurate at 100 yards. I enjoy RECREATION exceedingly, and have learned much from its gun and ammunition department. The letter in January issue by Ed. J. Anderson is as sensible an article as I ever read relative to would-be sportsmen praising or condemning certain makes of goods. If some Willie borrows a gun and a few cartridges for his annual half-day hunt, and finds that the gun goes off when he pulls the triggers, he straightway inflicts on a suffering world his opinion that such and such are the only guns and shells fit to use. Or, if a shell misses fire, he is equally positive in condemning the entire output of its maker. I have used Winchester and U. M. C. ammunition, 22 to 45 caliber, in several makes of rifles, also their shot cartridges, and have yet to miss fire.

F. B. S., Rochester, N. Y.

In reply to Repeater, Jamestown, N. Y., would suggest that it is not necessary to use wads in his 44 caliber Civil War revolver. With pointed bullet use 20 grains fine black powder, about f. f. g. If using round ball, use not over 15 grains, or the bullet will jump the rifling.

Garvey Donaldson, Macksburg, O.

WHAT THEY THINK OF THE MARLIN.

You are doing a good work. Keep it up! Everything that is said in RECREATION about the Marlin rifle is true. If you could be in the position I was with one of their guns, you would say more than

you do. I had to take a spike nail and hammer to get the cartridge out. I worked with the gun until I was tired and finally gave it to an old darky for a pint of chestnuts. The blamed thing would make a parson cuss his existence.

Hugh Woodward, Knoxville, Tenn.

W. F. Sheard, of Tacoma, Wash., in his gun catalogue has the following to say regarding Marlin guns:

I do not manufacture, recommend, or guarantee Marlin rifles. If they chew up the heads of the cartridges, or clog up in the action and magazine, it is not my fault; so do not ship them back on my hands. I have Marlin rifles for sale for those who want them, but when sold and delivered, my responsibility ceases.

L. E. Nelson, Tacoma, Wash.

The following quotation from Shakespeare is respectfully called to the attention of Mr. Marlin and the Peters Cartridge Company.

"Happy are they that hear their own detractions and can put them to mending."

J. J. Morcom, Hartford, Conn.

I have no use for the Marlin rifle. It is the biggest humbug I ever saw. I lost a chance to get a shot at a black bear by a shell catching in the lifter. The .30-40 Winchester is, in my estimation, the only gun. G. L. Manor, Postfalls, Idaho.

THE ADVANTAGE OF A STRAIGHT STOCK.

In July RECREATION Henry Merlin asks, "Why can not one get a gun with 3½ inch drop without paying extra?" and further says: "Straight stocks seem the fashion at present, and one can see long necked men at the trap kinking their spines to bring the eye to the level of the barrel. If those men were quail hunting in thick cover they would in almost every case shoot under their birds, not having time to bring the cheek down to the gun."

I have by experience learned the opposite; and think the shooters referred to overshoot when they miss. It is the crooked stock guns that shoot under. About 10 years ago crooked stocks were popular, and at that time I ordered my first hammerless gun. The dealer told me that, as I had a long neck, a 3½-inch drop would be correct. The gun invariably shot under the birds.

Now I use a gun with 2⅝-inch drop, with better results; the straighter stock throws the aim high, and as birds and targets are nearly always rising the shooter must hold over or miss. Sometimes we aim point blank at a straight-away bird and pull the trigger, when we know we should have held over. The straight stock will help us to avoid that error.

Again, the small shot used for quail or target shooting will drop about 5 inches at 40 or 45 yards, and I believe that some guns are bored to shoot a trifle high to overcome the drop. When the gun is not so bored, the remedy must be found in the straight stock.

C. W. Gripp, Pacific Beach, Cal.

NOT DOGS BUT POT HUNTERS.

I have noticed in your magazine a consensus of opinions against the use of bird dogs in hunting game birds. Someone said that if sportsmen must keep and use dogs they should pay $10 a year license fee. That gentleman has, no doubt, overlooked the fact that thousands of people own dogs of one kind or another in the large cities and are now paying an annual license fee of $1 to $2. In Baltimore a fee of $2 is required for the first year's license and thereafter $1.50 annually. About three-fourths of the sportsmen who gun for game birds are owners of bird dogs. The other one-fourth who also hunt game birds do so without dogs. The pot hunter tracks birds in the snow, or watches where they feed, and early in the morning takes his pot gun and kills as many birds with one barrel as a self respecting sportsman, hunting with a dog, would bag in a 2 or 3 days' hunt, where birds are not plentiful.

It is not the man who kills birds for sport that is helping to deplete our available stock of game birds. Far from it. The market hunters destroy every year a far greater number of birds than the ordinary sportsman will ever take. Let some of these fellows who talk so much do their little mite toward preserving the birds through a severe winter and they can feel assured that they have accomplished something. However, most of them think that "they also serve who only sit and wait."

H. J. E. Thomas, Baltimore, Md.

WHY SAVAGE DOES NOT MAKE A 30-40.

Utica, N. Y., U. S. A., May 5, 1902.

In reading your always interesting magazine, I came across the article by F. Q. Rutherford, of Chihuahua, Mexico. There is a good reason why the Savage Arms Company has not, up to date, manufactured a rifle to take the 30-40 Government cartridge. It is this:

The Government has condemned the 30-40 cartridge, and has designed a superior one, which they are adapting the Krag to use. The cartridge will be seamless shell, 30 caliber, with better velocity and more accurate than the 30-40 now used by the Government. A complete set of tools to manufacture a new rifle costs $45,000 to $60,000, and it was but wisdom to wait until the new cartridge was designed and

adopted before going to such an expense, because as soon as the new cartridge is issued to the U. S. Troops, the present 30-40 will be an obsolete cartridge. One of the greatest advantages claimed for the 30-40 ammunition is the fact that the Government ammunition can be procured in any part of the country, especially where there is a military post. As soon as possible, the Savage Arms Company will manufacture a rifle to take the new cartridge, but it will be 18 months or 2 years before this can be turned out for the market. The 22 caliber is under way, and will come out this fall.

Arthur Savage,
Managing Director Savage Arms Co.

TO PREVENT RUST.

Some of your readers have asked for advice regarding the prevention of rust in small caliber rifles, and have been advised by others to clean the gun thoroughly and then draw an oiled rag through it. That is excellent as far as it goes; but it by no means goes far enough. I have had a rifle so treated rust badly in 2 weeks. The reason is obvious; acid in the oil. Most lubricating oil is unfit for such use. The officers of the Ordnance Department and Artillery Corps of our army know well that ordinary oil must not be placed in the carefully machined recoil cylinders of heavy guns, and accordingly use only special oil furnished by the Ordnance Department after careful test of its neutrality.

The safest protection for guns is probably the gun grease sold by reliable manufacturers and to be had of any gun dealer. My shot gun does not rust when stored for months or when used in rain or even in salt water spray. It is protected by grease made by Scott & Richards, Boston. So little grease is required that the gun appears perfectly clean and does not soil hands or clothing. A 15 cent tube contains sufficient to keep a shot gun a year even if the grease be used after every hunt and at the rate of 2 hunts a week.

R. R. Raymond,
First Lieut., Corps of Engineers, U. S. A.,
Montgomery, Ala.

A RECORD-MAKING REMINGTON.

In March RECREATION C. A. M. asks about the shooting qualities of the Remington double gun. I have been using one 2 years in the field and at the traps for both live and clay birds, and will tell him my experience.

The gun I use is an A. grade, 30 inch full choke Damascus barrels, patterned at 336 left and 334 right, with f.f.g. powder and No. 8 shot. I have made as good patterns, or nearly so, with No. 7½ shot and Ballistite powder. Also with Laflin & Rand new Infallible powder. Am using the latter at present with No. 7 shot.

I began trap shooting with this gun in May, '01, and as I never had shot over traps before I did not make a brilliant showing. Now I am able to make 22 or 23 right along and have made 25 straight. Am shooting against Parker, Ithaca, Marlin, Trancotte, Smith and Winchester guns, and my gun has the high record in this club and town. If C. A. M. wants a gun for trap work 30 inch barrels probably are best; but for brush I should choose 26 inch barrels, right open and left slightly modified.

Dr. R. L. Williams, Kane, Pa.

U. M. C. BETTER THAN GERMAN.

I saw in January RECREATION an article on the Mauser by E. E. Stokes, giving his experience with German and U. M. C. ammunition for that gun. I have a 7 m-m Mauser, and have found the same trouble with German-made ammunition that Mr. Stokes did, but I have had no trouble whatever with U. M. C. shells. The U. M. C. Co. uses Troisdorf powder in loading Mauser cartridges, and I fail to see why it should not be as powerful here as in Germany. I load my own ammunition, using DuPont's 30 caliber military powder, 40 or 42 grains, and U. M. C. 7 m-m bullets. Occasionally a shell will split at the first discharge, but I have a clip of 5 shells that have been fired 12 times each with full charges of DuPont powder, yet show no signs of weakness. With that charge, 42 grains, I have put a full metal jacketed bullet through a green button ball tree 26 inches in diameter, at 200 yards range.

Am sorry the Laflin & Rand Co. do not advertise in RECREATION, now, for they make the best shot gun smokeless I ever used.

L. H. Higgins,
Master S. S. Admiral Sampson.

ANSWER E. E. VAN DYKE.

Readers of RECREATION at this place think E. E. Van Dyke should have filed an affidavit with his story in the February issue. That was a wonderful little rifle he had. Mr. Van Dyke could draw a large salary in a gun factory. They could fit him out with a hickory log, and shut down the other machinery. If he can straighten a rifle barrel by whanging it over a stump, he can doubtless, also, enlarge the bore by blowing through it.

C. E. Wilson, Mt. Carlon, Colo.

In February RECREATION is an article by E. E. Van Dyke. He shoots a deer through the heart with a 30-30 and it runs 250 yards before falling. Again he shoots 4 deer

with 4 shots at 75 yards with a Stevens 22 and they all drop dead in their tracks. Mr. Van Dyke forgot to send salt along with the story. Silver Tip, Sicamous, B. C.

I move that E. E. Van Dyke be awarded a leather medal for his article in February RECREATION.

A. M. Hare, Bay City, Ore.

STILL HITTING PETERS.

Schenectady, N. Y.

Peters Cartridge Co.,

Cincinnati, Ohio:

Dear Sirs:—As a friend of RECREATION and fair play, allow me to suggest that you promptly renew your advertising contract with Mr. G. O. Shields. It is, in a sense, none of my business: but I think Mr. Shields is right. Unfavorable comments occasionally act as salt to the dish, and do a good article far more good than harm.

Yours truly, John A. Learned.

Penn Yan, N. Y.

Messrs. Peters Cartridge Co.,

Cincinnati, Ohio:

Dear Sirs:—I notice in RECREATION a letter of yours that looks flunkey. Why don't you widen the rim of your cartridge a little, to fit the best brush you make, and not kick because some honest sportsman finds an honest fault with an honest fact. Hope your difficulties will be amicably arranged. Shooters are watching.

Respectfully, H. R. Philips.

HOW TO RELOAD 30-30 SHELLS.

I thank H. B. Rantzau for the information he gave in October RECREATION about loading 30-30 shells with round balls. I tried his load and found it extremely accurate. I used a 22 long shell full of Laflin & Rand sporting smokeless powder. It is clean, but not more than half the charge burns. That does not seem to affect the accuracy, but the unburned powder runs back into the action when the gun is turned up. Instead of a tack hammer for seating the bullets, I use steady turning pressure against a soft pine board. This ammunition will run through the magazine of my 30-30 Savage if the balls are firmly seated. I like to read the opinions of Jack Pattern, F. J. Grube and others who understand guns. It would be a great treat for readers of the gun and ammunition department if the editor would publish an illustrated article describing one of the large gun factories and telling how rifles and ammunition are manufactured.

M. P. R., Tylerhill. Pa.

PREFER THE 25-20 WINCHESTER.

In reply to A. J. Lang, Rondout, N. Y., will say I have owned a number of rifles of various makes and calibers, and have found the 25-20 single shot as good a target rifle as any. It is extremely accurate within its range. As a game gun, I have not used it much except on woodchuck. One day last summer I killed 9 in 2 hours at various ranges up to 100 yards.

C. W. Ditsworth, Lanark, Ill.

Tell A. J. Lang that the 25-20 Winchester as a target and hunting gun is all right. I have killed ducks with mine where it would have been impossible to reach them with a shot gun, and where a larger rifle would not have left anything but feathers. For target work there is no more accurate arm, not excepting the Stevens. J. B. Watson, Muncie, Ind.

SAPOLIO WOULD SCRATCH RIFFLE BARRELS.

I noticed in January RECREATION an article by George McLean on how to keep small bore, smokeless powder rifles clean. He recommends the use of Sapolio. That, no doubt, will do the work effectively, but how about the scratching? I had occasion the other day to use Sapolio in removing spots from the surface of a lamp chimney. I succeeded; also succeeded in scratching the chimney so as to almost ruin it. Flint glass is harder than even Krupp steel. Of course the abrasion would be slight each time and not noticeable at first, but I am mistaken if it would not ruin the rifle in time; and I wonder by what reasoning he arrives at the conclusion that by leaving the breech block open, the inside of the barrel will not rust whether cleaned or not, providing the inside is dry? I never heard of that theory, but there are doubtless many good things I never heard of.

A. L. Hull, Denver, Colo.

SMALL SHOT.

In March RECREATION I notice W. H. May's comments on W. D. Gruet's squirrel shooting with a telescope sight. I have one of Cummins' 'scopes on a 38-55, and from my experience should say that such shooting as Mr. Gruet's would be almost impossible off-hand. I am glad to see W. H. Long stand up for the old 38-55 Winchester. With the smokeless, soft point bullet, I believe it powerful enough for any game in this country. It is one of the easiest shells to reload, being straight. Another advantage is that everlasting shells can be had in this caliber. They do not need to be resized, and are practically indestructible. I use them for practicing

only, as they can not be put through the magazine. I should like to hear from someone using a Stevens 22-15-45 or 22-15-60, as to its power, range, etc.

H. D. Chisholm, Dalhousie, N. B.

I saw recently a letter in RECREATION advising the use of hot water to clean gun barrels. I think such advice is an error. I have read that hot or boiling water will injure gun barrels by destroying their temper, which looks reasonable. It does not seem necessary to use water, either hot or cold. A good brass cleaner, followed by an oiled swab or rag, will clean a gun more quickly and better than any other method, and can not injure the gun. As a rust-preventive, when a gun is to be set away for some time, there is nothing better than boiled linseed oil. Applied to the inside of the barrel, it dries and forms a thin coating, impervious to moisture. Have found it a perfect way to preserve the gun when not in use. The first shooting will remove it. W. A. Remele, Bridgewater, Vt.

In reply to the question of R. M. C., would state that in a letter the Savage people say: "The penetration of the full jacketed .303 Savage cartridge is, approximately, 50 inches in pine. We have proven this a number of times." The Winchester people write me as follows: "The .303 Savage has a velocity of 1,840 feet and a penetration of 33 pine boards, each ⅞ inches thick, at a distance of 15 feet from the muzzle. This is with the full metal patched bullet.

"Under identically the same conditions, the .30 U. S. A. and .303 British full metal patched bullets have a velocity of 1,960 feet a second and a penetration of 58 boards." H. L. Pugh, W. Phila., Pa.

I should like to hear through RECREATION from someone who has used the Luger automatic revolver on big game. Would it answer in the place of a rifle to kill game for food where game is plentiful and can be approached within 50 to 100 yards?

A. L. Taber, Santa Ana, Cal.

The Luger automatic pistol has about the same power as a 32-20 black powder cartridge shot from an ordinary hunting rifle and would have approximately the same effect on game as this charge. The greater skill required to shoot a revolver would, however, make the chances much less of hitting game than with a rifle at ordinary hunting distances.—EDITOR.

Please tell Mr. Alexander, of Minneapolis, I had the same trouble with my rifle sights that he writes about. Even when I equipped my rifle with the Lyman peep and club sights I could not see well enough. Explaining this difficulty to my oculist it was suggested that a glass corresponding to that which I used be applied to the cup disc of the peep sight. This removed the difficulty at once and I can see perfectly with my sights, without other glasses. This idea is not new, but as it fits Mr. Alexander's case he might be glad to know it. J. Doux, Utica, N. Y.

I recently bought some of the new lubricated wire patched bullets made by the National Projectile Works of Grand Rapids, Mich., and found them all that is claimed. I gave them a thorough test with black and smokeless powders of various kinds and charges and in different guns. They are the best bullets I have ever used, and I have been hunting big game many years, making collections for museums, etc.

Albert R. Beymer, Rocky Ford, Colo.

In answer to H. F. L.'s question in September RECREATION as to which is the best rifle, a 25-20 or a 32-20, would say I wrote the Winchester Arms Co. on the same subject, stating that I wanted a gun for small game and target shooting up to 200 yards. They answered as follows: "We believe you will find the 32-20 rifle more satisfactory than the 25-20." I took the hint, bought a 32-20 and have never regretted the choice. Single Shot, Milwaukee, Wis.

Say to D. R. McLean that he will be well pleased if he buys a Winchester rifle. I have a '92 model, 38 caliber, 22 inch octagon barrel, which I would not exchange for any gun I ever saw. On a camp hunt last fall I killed 3 deer, 5 turkeys and a panther with it. Have also a Spencer repeating shot gun for ducks. With any sort of a chance it will stop 3 or 4 birds out of a flock before they can get out of range.

F. L. Smith, Clarksdale, Miss.

In reply to W. E. C., of Salem, Conn., will say I have used a No. 44 Stevens Ideal 25-20 nearly a year. W. E. C. will make no mistake if he gets one. My gun has a 30-inch barrel, with Lyman combination sights. I have killed woodchucks 15 to 110 steps with it. I have shot rabbits, squirrels and large hawks. It does its work if held right and has more penetration than one would think.

W. C. N., Barboursville, Ky.

In March RECREATION James Colton, of Normal, Ill., is quoted as saying "Peters 22 cartridges will fail to explode about 1 in 5." My experience with them has been different. Within the last 60 days I have used not less than 800 without one miss fire. I have a Winchester repeater and for accuracy and reliability it is all one could desire. Perhaps Mr. Colton's gun was at fault.

Chas. J. Hill, Bridgeport, O.

F. L. N., who asks for the address of a maker of 28 gauge shot guns, is advised that the Remington Arms Company, Ilion, N. Y., makes a 28 gauge gun in several different grades. If he will write these people they will give him full information.

J. D. H., Port Jervis, N. Y.

I own a Remington hammerless, grade A, 12 gauge, weight 8¼ pounds. It is a gun I cheerfully recommend without qualification. There is no better medium priced gun made. I enjoy RECREATION more and more with each successive issue.

W. G. Fanning, Lubec, Me.

I don't see how anyone that ever shoots a gun can get along without RECREATION. I find something in every number that is worth more than the price of the whole year's subscriptions. Give us more about guns and ammunition.

Geo. Burns, Salina, Utah.

The .30-40 and .303 carbines are excellent for large game, especially for bear or elk. The .30-30 is a trifle small for such game. A big silvertip would eat a whole box of .30-30's and a man or 2 besides, before giving up.

Sam Stevens, Cripple Creek, Colo.

Like Glenn McGowan, I, also, like the Stevens Favorite rifle. Have had one 2 years. Recently I killed a crow with it at 135 yards, using a Winchester 22 long, smokeless cartridge. I use a Lyman rear sight. F. Winton, Spring Hill, Tenn.

Ed. J. Anderson, in January RECREATION, advocates the use of olive oil for the inside of a gun. I have always found any vegetable oil inferior to other oils. I think others have said the same in RECREATION.

W. S. Brown, Oxford, O.

We are organizing a gun club, no member of which can be over 23 years or under 16. No game hog can get in under any circumstances. The club allows each gun 15 quails a day. It now has 30 members.

C. C. Greisenbeck, Bastrop, Texas.

Please tell me through RECREATION, what would be the effect of a 22 caliber mushroom bullet on a woodchuck? Also, what is the carrying power of 22 long and long rifle bullets in a Stevens crack shot rifle?

Crack Shot, Hudson, N. Y.

While so many are praising high power guns, nothing is said about the .40-72 Winchester. It is an accurate and powerful weapon. I should like to learn the opinions of others about it.

D. C. Hoisington, Amsden, Vt.

Will someone please tell me if the 32 Ideal cartridge is accurate when used in a Remington No. 3 rifle? I have been told that in that shell the lead and powder load are disproportionate.

E. A. Bunts, Ellsworth, O.

Will T. R. S., Ithaca, N. Y., kindly send me description of the tool he made for counter-boring brass shells to use Winchester No. 4 primer; also state how he did the work?

John E. Connor, Concord, Mass.

What kind of sights are most serviceable for general use in game shooting? I have a Savage .303. Will some sportsmen kindly give me the benefit of their experience?

D. W. Gans, M.D., Massillon, O.

Will some of your many able correspondents tell me how the 7 m. m. and the 8 m. m. Mauser rifles compare in power with the American 30-40?

Vindet, Pittsburg, Pa.

Will you or some of your subscribers please give me information as to the loading of 12 gauge shells with E. C. or Laflin & Rand powder?

Frank A. Ward, Sterling, Ill.

Mr. A. G. Burg, who asks help in choosing a medium priced gun, will find the Parker and the Lefever among the best on the market.

H. V. Bell, Columbia City, Wash.

Will some readers of RECREATION kindly relate their experience with lubricated wire patched bullets used in quick twist rifles.

F. P. Vedder, Broadalbin, N. Y.

NATURAL HISTORY.

When a bird or a wild animal is killed, that is the end of it. If photographed, it may still live and its educational and scientific value is multiplied indefinitely.

THE FLYING SQUIRREL.

Somerset Co., Pa.

Editor RECREATION:

I notice that someone asks through RECREATION for information concerning the little grey, or American, flying squirrel. I am glad of an opportunity to call attention to this beautiful little creature which, owing to its timid disposition and strict nocturnal habits, is little known. Even the naturalists seem to neglect it, which is to be wondered at, considering its surpassing beauty and its remarkable aërial powers. It is but a tiny creature, hardly so large as a chipmunk, yet it affords wider opportunity for nature study than a grizzly bear. It is clothed in long fur, as fine as the silk of Minerva's own spinning, which puts to shame the spider. It is dark grey brown above and as white as the snows of heaven beneath, the colors not shading into each other, but with an abrupt line of demarcation which follows along the edge of its "parachute extension." Its eyes are large and, like those of all nocturnals, black. Its distinguishing feature, which makes it a flying squirrel, is the broad band of skin connecting its front and hind legs. Worthy of special notice also is the peculiar structure of its tail. The hairs, which are firm, but not stiff, are so arranged along the sides as to form a flat or slightly concave surface beneath. Viewed from the under side, the tail resembles a feather. Its use will appear later.

When the squirrel is at rest or running, the skin which forms his parachute, by its own elasticity, draws in folds to the animal's flanks, where it is out of the way and out of sight; but when he has occasion to pass from one tree to another and does not wish to descend to the ground, he leaps boldly into space, stretching out his little legs in the same act. The flaps, which were so neatly tucked away, then do excellent service as wings and he skims away like a swallow. He does not fly, in any sense of the word. On leaving the limb he takes a direction obliquely toward the ground, which position, with the front part of the body lower than the back part, he maintains throughout his course. Once in the air his motion is simply the result of gravitation, modified by the law of resistance. Gravitation, the balance wheel of the universe, would draw him straight to the earth, but there is another law of nature which says that he must move in the direction of the least resistance. When Dame Nature was making the squirrels she thought of this particular combination of her laws and made one species expressly to take advantage of it. The broad bands of skin along the sides of the animal encounter much air, which offers much resistance to its straight downward motion; but moving obliquely downward and forward with its body tilted in the same direction, it encounters relatively little air, consequently this must be the direction of its course. Here we see the use of his tail. By it and his head he is able to assume the proper tilt for the required distance. The lower his head the shorter and swifter will be his flight. Of course it will be seen that the distance of his flight depends on the height of his starting point and the angle of his descent. He must always descend, for gravitation, which is the only motive power, can act only in that direction. Before he alights he gives an upward swoop, in order to lessen his speed and consequently the shock. He does this just in the same way that a sled, after sliding swiftly down a hill runs partly up the next.

I never saw a flying squirrel abroad in daylight of its own accord, and when driven out, they hasten to some dark retreat; but when the shades of night have fallen they come forth by families, for they are a sociable people, and engage in such sports as you might imagine ordinary squirrels further endowed with the power of flight might carry on. Their food consists largely of nuts and insects, preference given to the latter. When a boy I frequently caught them in traps set for other animals, and baited with meat. I remember one time I had set a box trap for a skunk, and on visiting the trap next morning, I found the lid down. I raised it rather incautiously to investigate, when out came a little brown flash. It paused a moment to reconnoiter, but not seeing any welcome tree convenient it did the next best thing; it ran up me, in spite of my frantic remonstrance. When it reached my shoulder it paused not a moment, but giving me a vigorous spurn, leaped toward a giant oak, up which it ran and then sailed away several hundred feet, doubtless chuckling over its escape, although at no time had it been in peril.

D. S. Boucher.

HOW GROUSE TAKE WATER.

I have been much interested in the discussion as to whether ruffed grouse drink water in the same manner as the domestic fowl, and until recently was of the opinion they did not, as I have watched their habits closely in Maine, Massachusetts and Minnesota, and never saw a grouse drink, though they will pick drops of water from twigs and grass. At the Sportsmen's Show, in Boston, I was watching a male grouse, standing on a log, with ruff extended, wings dropped and tail partly spread, as though about to drum, when another grouse came out of the brush in the pen and drank water from a tin pan exactly as a hen would do it. This may be a result of domestication, as I have noticed that many birds and animals change their habits under different conditions.

We have been feeding the squirrels about our house for more than a year, and have 2 red and 7 grey squirrels that come regularly for peanuts. The cats hunt these squirrels continually and have caught several. Yesterday morning I noticed a strange squirrel in company with one of our old pets, whose mate was killed by a cat last fall. The new squirrel looks thin and acts hungry, but does not know what a peanut is for. It will examine the one being eaten by its companion, and then hunt around with it until it finds a nut; but it will not eat a peanut, though it will take a walnut at once.

C. G. Brackett, Boston, Mass.

Mr. E. T. Seton, in his book, "Wild Animals I Have Known," page 312, story of Redruff, says: "Then came the drink, the purest of living water, although silly men had called it Mud creek. At first the little fellows didn't know how to drink, but they copied their mother, and soon learned to drink like her, and give thanks after every sip." The illustration at the top of the page shows the young grouse standing along the bank of the creek, drinking. Assuredly, Mr. Seton would scarcely assert such a thing if he did not have good ground to base his claims on.

David S. Wegg, Jr., Chicago, Ill.

If you will read, in November RECREATION, 1901, the article by Mr. A. F. Rice, which started this discussion in regard to the manner in which grouse take water, you will note that he says a certain author admits, "I have never seen grouse drink." That author was Mr. E. T. Seton.—EDITOR.

Being interested in the discussion going on in RECREATION about grouse drinking, I took pains to watch the ruffed grouse at the Boston Sportsmen's Show, March 8. One of the grouse stepped into the pan of water provided, dipped its bill in, and then raised its head between sips, exactly as a hen does in drinking. No doubt many others have noticed the same thing, as the enclosure contained a number of these birds. H. P. Libby, Eliot, Maine.

While at the Sportsmen's Show in Boston, February 22d, I stopped a few minutes in front of the enclosure containing a number of ruffed grouse. One of the birds hopped on the edge of a pan containing water and drank copiously. It seemed such a natural thing to do that I should not consider it worth recording had I not noticed the discussion regarding the matter in RECREATION.

Wm. L. Skinner, West Cambridge, Mass.

COON CHATTER.

I have hunted coons 20 years, and am not tired of the sport yet, although coons are scarce here. I see in RECREATION letters about the noise a coon makes. I do not believe coons have any call. When a coon wants company he comes down from his bed tree and hustles off to find friends. I have a tame coon in a cage close to the house, and have never heard him make a noise except to growl at me when he is eating. I have had him 2 years. He is large, with a beautiful coat of fur. I have 4 hounds with which I hunt coons. One old one is the finest tree dog I ever went in the woods with. I have hunted with all kinds of dogs, but with long experience I will take the hound, and the finer blooded he is the better he suits me. I like a hound because he can work a trail after the coon has been gone a long time. Coons are scarce, and I like to give them a chance for their life. I go to hear the chase more than to get the game. I have a tent and go on a camping trip one week each fall. Last year we went to Slaughter Neck, 25 miles from here. I should like to correspond with anyone interested in coon hunting and anyone having pedigree fox or deer hounds for sale. Should also like to hear direct from the Baltimore man who saw the coon eat the bird eggs.

W. L. Barnes, Seaford, Del.

I have read with interest the articles which have appeared in RECREATION from time to time, in regard to coons barking or making calls. For more than 20 years I have hunted coons and have yet to hear one bark or make any noise except when worried by dogs. As I usually hunt alone I should be likely to hear any such noise if any were made. I have also kept a number of pet coons. Have never heard them make any sound, except during the mating season. I own some fine coon dogs and

should be pleased to correspond with other coon hunters who are readers of RECREATION.

H. J. Klotzbach, Girard, Iowa.

I notice an article in RECREATION written by F. W. Allard, Atlanta, Georgia, who says coons make no noise. He is mistaken. They make a noise similar to that of the red owl, but a great deal louder. On a still evening they can be heard a mile at least. I have heard raccoons in captivity chattering. When in a fight they make a noise much like that made by a shepherd dog. I have a coon in captivity at present, caught March 9, 1902. March 11th, at 8 o'clock, he made the noise described above. I was an ear witness, and there were others.

S. R. Covert, Fayette, N. Y.

I have read with interest in your valuable magazine the article by M. H. Douglas on coon chatter. I agree with him fully. I have a friend who has 2 pet coons that chatter and screech a great deal, but I have recently been told by an old hunter that a coon never screeches or chatters unless interfered with by some other animal.

I have been a regular reader of RECREATION more than 2 years and would not miss a copy for 5 times the cost.

Herbert S. Berry, Saco, Maine.

GREY SQUIRRELS SHOULD HAVE THEIR CORN.

I saw in January RECREATION 2 articles by you about protecting grey and fox squirrels. If you lived where they were thick and on a farm you would perhaps change your mind. Here in Southern Minnesota squirrels are numerous, and are not in the thick timber, but in groves of one to 10 acres in extent and are generally near farm buildings. That is why the farmers in this part of the country want the squirrels killed. A squirrel will go to a farmer's corn crib, take an ear of corn in his mouth, run off with it and hide it, then come back after more, and keep on until he has a bushel or more stored away. Where there are many squirrels it counts up fast, and means something to the farmer, especially when corn is 50 cents a bushel, as it was this year.

I buy RECREATION every month at the news stand and like it very much. We have a few game hogs here, the kind that kill 25 or 30 rabbits and give half of them to their cats and dogs. I have seen that done more than once.

F. E. Williams, Spring Valley, Minn.

I am sure you have been misinformed about the work of squirrels. I was born and raised on a farm in the West, and have been among squirrels more or less all my life. I have lived in different sections of the country at different times, where they were abundant, and have studied their habits closely. I have never yet seen a grey squirrel carry away an ear of corn, nor have I ever heard of it before. I have often known the grey squirrel to go into a corn field and make a meal of an ear of corn. It is possible he may carry away a few kernels and deposit them in his den in some tree, but a whole ear of corn? I doubt it seriously. Has any other reader of RECREATION ever seen a squirrel carry away an ear of corn? Mr. Williams says the squirrel keeps on carrying ears of corn until he has a bushel or more stored away. This is simply absurd. I have investigated many squirrels' winter *cache* and have never yet found one that contained a quart of food. All species of squirrels hibernate more or less through the winter and do little eating. They are not such gluttons as to store 10 or 20 times as much food for the winter as they can eat within that time. —EDITOR.

WRENS FIGHT SPARROWS.

In looking over the natural history department of February RECREATION, I noticed an article about the sparrow not being the only feathered fighter. Last summer I made a bird house out of a starch box and nailed it to a tree near our woodshed. A wren soon came and built in it, and I could watch the bird from the window in the shed. Of course the sparrows tried to drive the wren out, but the wren is able to handle sparrows. When the wren went away the sparrows went to the house and started to pull the sticks out. The wren soon found a way to stop this, which was to put a lot of sticks squarely across the doorway until the hole was too small for the sparrows to get in. Then if the sparrows tried to pull these sticks out the ends caught on either side of the doorway and held them in.

One day the wren was in the house, fixing some hair in the nest, and some sparrows came along, bent on mischief. The wren waited until one of the sparrows perched on the shelf just outside the door. Then the wren flew suddenly out, right in that sparrow's face, and sent him rolling to the ground. The wren was not content with that, and chased the sparrow about a block, pecking him hard all the way.

Another time a woodpecker lit above the house and started pecking. The wren came out and scolded awhile. Then its mate came, and they made the woodpecker fly off in a hurry.

Bluejays also chase sparrows. There is a water pan for our dog out in our front

yard, and this is a favorite bathing place for the birds. The bluejays always chase the sparrows away when they happen to meet there.

The sparrow is not so much of a fighter but rather depends on the number in the bunch than on individual fighting powers.

Charles S. Pope, Moline, Ill.

NATURAL HISTORY NOTES.

In February RECREATION I saw an article from W. C. Buell, Troy, N. Y., in regard to the killing of a ruffed grouse by flying against telegraph wires. Last fall 3 of us were returning from a hunting trip in Indian Territory. It was past camping time and there being no more suitable place in sight, we pulled up alongside of a stone fence on one side and a 3-wire fence on the opposite. While part of us were eating supper we heard the wire behind us twang. Something had struck forcibly. Running quickly over to where the wire was still vibrating we discovered one dead quail and heard one flopping in the grass, but before we could locate it we heard it fly away, being only stunned. Some of the boys who had gone out after wood were returning and had cut across the pasture, scaring up some birds. It being dark and the birds frightened, they had struck the wire fence, in their flight.

All true sportsmen should lend their efforts toward the protection of game, and I know of no better way to make the start than to join the L. A. S. I have killed more than the limit in a day's shooting, but not since I began reading RECREATION. Thanks to Coquina and the good work he is doing! May more see they're wrong and stop before it is too late and the game is no more except in history.

C. M. Tissue, Partridge, Kan.

I have a cement aquarium in my yard and should like to know what will keep the water in it from getting green.

W. M. Haynes, Austin, Ohio.

ANSWER.

The green of which you complain is due to the growth of unicellular algæ, or small microscopic plants, which multiply rapidly. It is easy for them to be introduced into the aquarium along with the larger plants which are put in intentionally. To keep out these algæ, first clean the aquarium thoroughly, then, when putting in the desired water plants, wash them carefully by gently drawing them through water, in another receptacle, of course, so that any adhering algæ may be washed off. Even then it may be necessary to wash the walls of the aquarium occasionally.—EDITOR.

Do crows smell powder? I have not killed many crows, but have lived in a part of the country where they are plentiful, and have been a close observer of their cunning nature. I have heard several discussions as to whether crows smell powder, and have decided to ask readers of RECREATION. A friend and I, while out in the woods one day, saw a flock of perhaps 200 crows, which we could approach within 10 feet. I did not have my gun, but got it in short order. When I came within gunshot of them they commenced making a fearful noise and took flight rapidly. A person might think they smelled the powder, but I thought my stealthy approach alarmed them. Should like opinions on this subject.

R. Armstrong, Chatham, Ont.

I killed some ducks on a small lake near here last week and should like to know what kind they were. The drakes had 2 small black tail feathers about 6 inches long. The ducks did not have long tail feathers. The feet were black on the back and blue on the front side. The drakes had black breasts, with white ring around the neck, white on top of the head and the under part of drakes was white. The females were about the same color but were duller. They had flat bills and were not large, weighing about 2 pounds apiece.

Sayer Rockwell, West Burlington, Pa.

ANSWER.

These birds are old squaws, or long tailed ducks, *Harelda hyemalis. Linn.*

Should like to hear from some reader of RECREATION who can give me any information in regard to the raising and handling of frogs.

George S. Overdear, Fort Wayne, Ind.

ANSWER.

Not long ago the U. S. Fish Commission issued a pamphlet on "The edible frogs of the United States and their artificial propagation." This pamphlet is No. 348, and you can doubtless obtain a copy by addressing a request to Hon. Geo. M. Bowers, Commissioner of Fish and Fisheries, Washington, D. C.—EDITOR.

In March RECREATION I saw an article by W. O. Isaacson about 2 white squirrels. Not long ago a white chipmunk stayed here. It had its nest under a railroad bridge. It was seen several times, but it has not been seen lately.

L. T. Meminger, Spruce Hill, Pa.

Will some reader of RECREATION tell me how the little spotted ground squirrel digs his hole without showing any fresh dirt around the mouth of the hole?

Geo. E. Blackford, Algona, Iowa.

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Sumner,	W. G. Harris,	Gallatin.
Stewart,	John H. Lory,	Bear Spring.
Robertson,	C. C. Bell,	Springfield.
Montgomery,	P. W. Humphrey,	Clarksville.

LOCAL WARDENS IN NEBRASKA.

Hall,	E. C. Statler,	Grand Island

LOCAL WARDENS IN NEW HAMPSHIRE.

Cheshire,	S. C. Ellis,	Keene.
Sullivan,	G. A. Blake,	Lempster.
"	J. W. Davidson,	Charlestown.

LOCAL WARDENS IN VERMONT.

Rutland,	Wm. J. Liddle,	Box 281, Fair Haven
Windsor,	F. A. Tarbell,	West Bridgewater.
Orleans,	E. G. Moulton,	Derby Line.
Essex,	H. S. Lund,	Granby.

LOCAL WARDENS IN ILLINOIS.

Rock Island,	D. M. Slottard,	12th Ave and 17th St., Moline.
Iroquois,	J. L. Peacock,	Sheldon.

LOCAL WARDENS IN OKLAHOMA.

Kiowa and Comanche Nation,	A. C. Cooper,	Ft. Sill.

LOCAL WARDENS IN IOWA.

Clinton,	D. L. Pascol,	Grand Mound.
Pottawattamie,	Dr. C. Engel,	Crescent.

LOCAL WARDENS IN WASHINGTON.

Okanogan,	James West,	Methow.
Stevens Co.,	Jacob Martin,	Newport.

LOCAL WARDENS IN UTAH.

Washington,	S. C. Goddard,	New Harmony.

LOCAL CHAPTERS.

Albert Lea, Minn.,	H. A. Morgan,	Rear Warden.
Angelica, N. Y.,	C. A. Lathrop,	"
Augusta, Mont.,	H. Sherman,	"
Austin, Minn.,	G. F. Baird,	"
Austin, Pa.,	W. S. Warner,	"
Boston, Mass.,	Capt. W. I. Stone,	"
Buffalo, N. Y.,	H. C. Gardiner,	"
Cammal, Pa.,	B. A. Ovenshire.	"
Champaign, Ohio,	Hy. F. MacCracken Urbana,	"
Charlestown, N. H.,	W. M. Buswell,	"
Cheyenne, Wyo.,	J. Hennessy,	"
Choteau, Mont.,	G. A. Gorham,	"
Cincinnati, Ohio,	B. W. Morris,	"
Coudersport, Pa.,	I. L. Murphy,	"
Cresco, Iowa,	J. L. Platt,	"
Davis, W. Va.,	J. Heltzen,	"
Dowagiac, Mich.,	W. F. Hoyt,	"
East Mauch Chunk,	Pa., E. F. Pry,	"
Evansville, Ind.,	F. M. Gilbert,	"
Fontanet, Ind.,	W. H. Ferry,	"
Ft. Wayne, Ind.,	W. L. Waltemarth	"
Great Falls, Mont.,	J. M. Gaunt,	"
Heron Lake, Minn.,	K. C. Buckeye,	"
Hollidaysb'g, Pa.,	H. D. Hewit,	"
Hopkinsville, Ky.,	Hunter Wood,	"
Indianapolis, Ind.,	Joseph E. Bell,	"
Jerome, Ariz.,	Dr. L. A. Hawkins,	"
Johnsonburg, Pa.,	W. J. Stebbins,	"
Kalispell, Mont.,	John Eakright,	"
Keene, N. H.,	F. P. Beedle,	"
Kingfisher, Okla.,	A. C. Ambrose,	"
Lake Co., Ind.,	Dr. R. C. Mackey,	Rear Warden.
Loganpsort, Ind.,	E. B. McConnell,	"
Ludington, Mich.,	G. R. Cartier,	"
Mechanicsburg, Pa.,	Dr. J. H. Swartz,	"
Minturn, Colo.,	A. B. Walter,	"
New Albany, Ind.,	Dr. J. F. Weathers,	"
New Bethlehem, Pa.,	Isaac Keener,	"
Penn Yan, N. Y.,	Dr. H. R. Phillips,	"
Princeton, Ind.,	H. A. Yeager,	"
Reynoldsville, Pa.,	C. F. Hoffman,	"
Ridgway, Pa.,	T. J. Maxwell,	"
Rochester, N. Y.,	C. H. McChesney	"
St. Paul, Minn.,	O. T. Denny,	"
St. Thomas, Ont.,	L. J. Hall,	"
Schenectady, N. Y.,	J. W. Furnside,	"
Seattle, Wash.,	M. Kelly,	"
Syracuse, N. Y.,	C. C. Truesdell,	"
Terre Haute, Ind,	C. F. Thiede,	"
The Dalles, Ore.,	C. B. Cushing,	"
Walden, N. Y.,	J. R. Hays,	"
Wichita, Kas.,	Gerald Volk,	"
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There are thousands of men in the United States who should be life members. Why don't they join? Will someone please take a club and wake them up?

A NEW CHAPTER.

Another evidence of the value of energy comes from far-off Kingfisher, Oklahoma. Some weeks ago Mr. F. D. Dakin, a live sportsman of that town, made up his mind to organize a chapter of the League there. He went out, rounded up the boys, sent in 32 applications for membership, with check to cover, and the chapter was promptly organized. Now the country is being patrolled day and night by the members of the chapter and the first man who kills a bird or catches a fish out of season in that vicinity will find himself in trouble. The members of the Kingfisher chapter are in dead earnest in this matter, and it is safe to say there will be no more illegal shooting or fishing or shipping of game in that country from this day.

Here is a list of the members of the Kingfisher chapter:

F. D. Dakin, G. A. Nelson, R. J. Kester, J. S. Patrick, P. Houck, R. D. Hunt, G. Longandyke, G. H. Hart, A. C. Ambrose (rear warden), C. E. McKinley, E. G. Spillman, J. C. Cross, G. W. Mitchell, H. C. Rising, David Jackson, S. D. Calhoun, H. C. Wilson, H. Humphreys, H. E. Moore, V. A. Brennan, C. P. Wickmiller, A. J. Harris, R. O. Copeland, J. Q. Hart, Geo. James, J. A. Banker, J. L. Admire, Jos. Kauffman, Hy. Simpson, Wilbur Shidaker, J. V. Admire, H. W. Thies. If there are any other sportsmen anywhere who wish to save their game and game fishes from destruction, let them follow the example of the Kingfisher crowd.

BAGGED GAME LAW VIOLATORS.

A short time ago Game Warden Quimby received information that parties from Oregon City were hunting deer with hounds on the headwaters of the Clackamas. A week ago he sent Special Deputy Warden J. J. Kelly to look into the matter. Mr. Kelly made a 75-mile trip on horseback to near the upper hatchery, where he found the hunters' camp, and waited there till they came from the day's hunting, with 3 dead deer and a pack of hounds. There was also one deer in camp when he got there. He confiscated the carcasses, arrested John Howland and Seth Austin, and arrived at Oregon City with them Friday. They were arraigned in the Justice Court, pleaded guilty, and were fined $25 each. The poor deer are naturally lean at this time of year, but men out trapping kill them, dry part of the flesh, and use some to bait their traps. Austin is an old offender in this line. The arrest of these men will serve as a warning to all of that kind to stop their violations of the game law, as there is always some timber cruiser or party of surveyors in the mountains who will inform on them. —Portland Oregonian.

Mr. L. P. Q. Quimby is the chief warden of the Oregon division of the L. A. S. More power to his elbow.

LEAGUE NOTES.

Boone, Iowa.—George A. Lincoln, of Cedar Rapids, State Game Warden, has been sojourning in this section of the State, much to the sorrow of certain violators of the game laws. A firm at Pilot Mound, charged with the illegal marketing of game birds, were arrested and tried before a justice of the peace. They were found guilty and fined $151.50, including costs. They paid the bill, and it is presumed they will henceforth have greater respect for the majesty of the law.

From Pilot Mound Mr. Lincoln went to Somers, in Calhoun county, where a dealer was fined $76.50 for shipping game birds out of the State. He, also, liquidated.—Iowa paper.

Mr. Lincoln is a member of the League and this is the kind of stuff that all good League members are made of.—Editor.

Ducks are plentiful in many localities near Seattle. They swim around the overflowed fields, gazing at our L. A. S. reward posters. They seem to know they are protected. The close season on ducks begins March 1st. Not a shot is fired at them. And The League Did It.

Frank A. Pontius, Seattle, Wash.

The Hon. Wm. Sulzer, Member of Congress from New York City, has joined the League. We are steadily gaining ground in the councils of the nation, and I trust the day may not be far distant when a majority of the members of both Houses of Congress will belong to the League.

Mr. E. F. Smith, a League member, of Hinton, W. Va., acting under the Lacey law, seized 14 lots of game in December last that had been delivered to the express company for shipment out of the State in violation of law. The offenders are being prosecuted.

LONGING LOO.

ZEB YAHOO.

A man there was in Kalamazoo
Who longed for a land where there's nothing to do;
Where the sun shines every day in the year
Where music's the only thing you hear;

Where giants and monsters and googoos dwell,
Where fairies flit and Zulus yell;
A bungaloo of real bamboo
In the jungles wild of Timbuctoo.

He wanted to play with a real hoodoo,
To ride a mile on a wild gozoo
With a yellow girl he would call "Loo-loo,"
Who'd sing to him of the great Ya-boo.

So they took him to ride on a wild choo-choo
With a pack of wolves from the New York Zoo;
But they didn't take along Loo-loo,
And the man he wept, "Boo-hoo, boo-hoo!"

FORESTRY.

EDITED BY DR B. E. FERNOW,

Director of the New York School of Forestry, Cornell University, assisted by Dr. John C. Gifford of the same institution.

It takes thirty years to grow a tree and thirty minutes to cut it down and destroy it.

FORESTRY AND THE NEW YORK STATE CONSTITUTION.

An attempt was made this winter in the Legislature of the State of New York to pass a resolution bringing before the people for vote a partial repeal of Article VII of the State constitution.

It failed, undoubtedly through the strong opposition of influential men represented in the Association for the Protection of the Adirondacks, and in the New York Board of Trade, both of which bodies made a short, but determined campaign against the attempts to change the constitution in this particular.

Article VII reads: "The lands of the State constituting the forest preserve now fixed by law shall be forever kept as wild lands. They shall not be leased, sold or exchanged, or be taken by any corporation, public or private, nor shall the timber thereon be sold or removed or destroyed."

The resolutions on which the people were to be asked to vote provided for the leasing of camp sites, and for the sale and removal of softwood timber, 10 inches and more in diameter, and the building of roads, all under Legislative control; or, as the resolution in the Assembly expresses it, "the constitution shall not be construed to forbid the cutting of timber according to a system of scientific forestry."

Now, since by the failure of these resolutions the matter is again removed from the arena of politics to that of academic discussion, it will be possible, without charge of a desire to influence legislation one way or the other, to review the situation and try to sound the logical elements in it.

The arguments against change advanced by the Board of Trade in the memorial of its Committee on Forestry, are based on 3 propositions, namely:

Distrust in the ability of the Forest Commission and the Legislature to control proper cutting of timber.

The importance of the forest cover for the protection of the watershed, which makes all cutting of timber undesirable.

The impropriety of leasing camp sites by which the public at large is kept out from enjoying this public property.

The Association for the Protection of the Adirondacks, mainly composed of owners of camps or game preserves in the Adirondacks, or of members of clubs owning such, add in their appeal for assistance in staving off proceedings the following arguments:

That the restriction to 10 inches is not adequate, and that removal of the spruce to that diameter would impair the protective function of the forest cover.

That the culling of spruce would make much débris and thereby increase the danger from fire.

They also harp on the impairment of water supplies and increased danger from floods by denudation of the forest cover.

Finally, and in particular, they bring forward the argument:

That lumbering in the Forest Preserve would be a violation of good faith with those who have sold to the State lands adjoining their own in the expectation that the constitutional prohibition of the removal of timber will be maintained and, therefore, that their own property will not be jeopardized by logging operations, with the attending danger from fire.

Let us look at the situation as it is at present, and then at the arguments, separately, against a change.

We are neither in sympathy with the article of the constitution which prevents the State from a rational use of its property, excluding even its improvement by forest planting or otherwise; nor with the proposed changes which attempt to remedy this anomalous condition by one sided, half hearted, crude and ill advised measures, instead of proposing a well digested, comprehensive plan for the management of this important State property.

The State now owns over 1¼ million acres of forest land, and it is the expressed policy to add gradually to it until 3 million acres, more or less, shall be in the preserve. By the constitutional provision, the people have voluntarily deprived themselves of using this vast property for anything but sporting purposes, and as a soil cover to protect the water supply. Not only may none of the valuable materials grown in these woods be utilized, but they may not even be improved by weeding or cleaning up; nor, if the constitution is strictly interpreted, would it be permissible to plant and regain for useful production to forest any waste or burnt places; for these woods are to be kept as wild lands.

Any European who is acquainted with the forest management in his country, who knows that every forest growth should be treated like a crop, harvested and repro-

duced, and that no danger to the watershed need be feared where this is done properly and persistently, would smile at the folly exhibited by a people reputed to be of a practical turn of mind, in preventing such rational forestry practice.

Any rational, thinking man, not a sportsman or pleasure seeker, visiting this region and studying its conditions, will not hesitate long in deciding on the proper economics in the management of this property.

Theoretically, at least, he will have to admit that more enjoyment for a larger number, more benefit to the community, present and future, can be derived from it by using it as European forest properties are being used, than by the *let-alone* policy. Practically, however, he may admit that the methods of utilization now proposed by the Legislature and the manner of administration to be practiced do not lead in that direction.

Leaving out of consideration the question of leasing camp sites, which, under certain conditions, might be done with advantage and without detriment, let us see what the removal of the spruce to 10-inch diameter means. It means making an inroad on the valuable assets stored in this State property. It is a financial policy, only; not a policy to preserve or improve or reproduce the forest property; not a comprehensive forest policy. It says: Let us take out what we can profitably sell, using the funds for any other desirable or undesirable purpose, leaving the property by so much poorer, by so much more difficult for the future forestry management to restore to desirable condition.

For a private owner, who is mainly concerned in his present financial condition; for a State which is in financial distress and in need of funds immediately available, such a policy may be quite rational. For a great State, rich in resources and strong financially, it is not commendable.

The State of New York can afford to begin a forest management on a broader basis, which looks at the interest of the future even more than of the present. Forest management, carried on for continuity, always involves foregoing present advantages or incurring present expenditures, making present investments for the sake of future advantages, future incomes, future returns of investments; in other words, it must make sacrifices for the present, more or less, to be made good in a distant future. That is the reason why the State is to engage in such management; it has the obligation to provide for the future as well as the present; it is long-lived enough to secure the benefits resulting from abstemiousness and economy, or from present investments.

The proper policy for a virgin forest, to be managed for future benefits, is to remove it more or less rapidly and replace it by some better crop, which will protect the soil better and furnish a superior amount of useful wood material. The rapidity with which this change from the ragged and unprofitable forest of nature to the economic forest of man is to be made and the methods to be employed depend on financial, economic and natural conditions. In any case, it is a process of slow and gradual evolution, during which the interests of the present must also be taken into account.

Such a management requires a careful, far sighted plan before it is put into execution, and a fit and well organized administration.

We must agree with the first argument of the Board of Trade, supported by a statement of experiences, which expresses at length doubt of the ability of a commission of political appointees without technical training to supervise efficiently a technical management which contemplates continuity of plan and performance. As regards the doubtful expedient of hampering the administrative body by legislative control in such management, the memorial wisely says:

"No man, by his election as a member of the Legislature, is thereby endowed with any greater wisdom than he possessed as private citizen. The question arises, therefore, is it safe, in the present condition of knowledge on the forest question, to confide the care of the forests to the Legislature, as is to be done under the pending amendments?"

A change of method in administration, then, would seem to be required before a change in the use of the Forest Preserve can appear desirable.

The State can wait for enlightenment, and the time, no doubt, will arrive when a technical forest management such as we are acquainted with in all European countries, Japan and India may be organized.

Regarding the arguments which refer to the influence of forest cover on soil and water conditions, and the supposition that the removal of the spruce would be a damage from that point of view, we can not agree that in most cases such culling would be detrimental directly. There is altogether too much loose talk and generalization on this subject of forest influences.

If the lumberman really denuded the steep mountain slopes, and if the soil on such slopes were really exposed to sun, wind and rain for some time without re-

covering itself with vegetation, the results might indeed be disastrous. But these conditions are rare.

Indirectly, however, they may be induced by the fires which are so likely to follow the lumberman. These destroy the forest floor, which is the most essential factor in the problem of water conservation, and, if recurring, prevent the reëstablishment of a vegetable cover; soil washes begin and accumulate, and finally absolute denudation and its evil consequences are the result.

The main argument, then, against lumbering of any kind is not rationally because of the cutting and utilizing of the wood materials, but because of the leaving of débris and the increased danger of fire, the one being supposed to be a necessary concomitant of the other.

If this danger could be avoided—and it really can be at least minimized—there would in most cases be no objection to the harvesting of the merchantable trees from consideration of the needs of water protection. Without change in the methods of logging and in the manner of administering protection against forest fires, we agree that it is practically best to defer logging on State lands until these changes and this protection can be assured, and until a comprehensive plan, including the whole State property, in its scope on the lines indicated, can be proposed.

When that time shall arrive, when a rational forest management is to be inaugurated, the sixth reason, which appears rather specious, namely, that the State is impliedly under obligation to keep its property for ever in a wild state to please adjoiners, will probably not even be raised.

TREE PLANTING IN THE ARID REGIONS.

Port Arthur, Texas.

Editor RECREATION:

After a perusal of the article by Mr. Geo. E. Walsh, reprinted from *Harper's Weekly* in February RECREATION, I feel constrained to add my mite to the discussion by saying a few words touching "Trees for the Prairies." I lived for 12 years in Southwest Kansas, and the efforts made by the settlers to grow forest trees under the timber culture laws then in force showed how futile any further experimentation along those lines is likely to prove, even though conducted by skilled arboriculturists in scientific ways. That the efforts of the settlers were in most instances made in good faith, carried on through years of disappointing toil, is beyond question. That they failed in every instance to grow trees of any size is equally patent. After giving the matter some thought, I arrived at the conclusion that the main trouble lay in the fact that no attempt was ever made to grow trees in the places that were most likely to make the effort successful. Throughout that country there are thousands of acres, as Mr. Walsh says, among the sand hills that are absolutely worthless. If tree culture could be made to succeed at all, and I believe it could if attempted on a large enough scale, it would be in those regions. The principal drawback is the lack of sufficient moisture. By planting the trees in the valleys that lie between these hills every inch of rainfall on the level will be augmented 10 to 12 inches by the wash from the hillsides. After the ground has been broken by the plow, even so great an amount of moisture as this will be absorbed in a few hours, to be drawn on for weeks and months by the growing trees. With these nuclei the forest could be made to climb the hillsides gradually and creep out on the level plains themselves; and by holding and conserving the moisture, bring about such conditions as would increase the rainfall and drive the arid region back to the foothills of the Rockies. If the government will profit by the mistakes made by the settlers and try tree culture where 30 to 40 inches of water can be counted on every year as a helper I see no reason why success should not crown its efforts. To plant trees, of any variety, elsewhere will be a waste of time and labor.

Once the trees are started in the valleys, and they should be planted thickly, they would catch and hold the snows of winter as well as the rains of spring and summer. I had a garden in one of these valleys with a solid board fence on the North. I have seen the snow drifted in until the garden was filled to the height of the fence, and if it had been 12 feet high the drifted snow would have been of that depth. I have not infrequently seen the water standing a foot deep in that garden from a rain that could not have exceeded one inch on the level, and the valley was like many others in that locality.

One of the principal reasons why timber culture has always failed in the plains country is that there is no moisture in the subsoil. It is bone dry from the surface clear down to the water-bearing strata, one foot to 200 feet below the surface, and in many places much more. It is this lack of sub-surface moisture that brings death to trees that attain any size. While the trees are small and the roots are confined to the surface, the ordinary rainfall will be ample to keep the little tree living; but as soon as it becomes a tree, and attempts to draw from a greater depth for its moisture, it succumbs to starvation.

C. M. Davis.

PURE AND IMPURE FOODS.

"What a Man Eats He Is."

Edited by C. F. LANGWORTHY, PH.D.

Author of "On Citraconic, Itaconic and Mesaconic Acids," "Fish as Food," etc.

TOMATO CATSUP AND OTHER SAUCES.

A. L. Winton and A. W. Ogden have recently studied the catsup and other similar sauces sold in Connecticut. They discuss the manufacture of such goods in effect as follows, calling attention especially to the use of artificial coloring matter and preservation which are so generally met with and which should be discouraged:

Tomato catsup, or ketchup, is the most popular of the bottled table sauces on our market. It is found on the tables of nearly every hotel and restaurant, and is consumed in large quantities in families. When made in the household ripe tomatoes are pared, cored, boiled down to the desired consistency, and strained through a sieve to remove seeds. The strained pulp is cooked for a time with vinegar, spices, and other flavoring matter. Chili sauce is prepared in a similar manner from tomatoes, peppers (chilies), vinegar, spices, etc., but, unlike catsup, is not usually strained.

Both of these sauces are bottled hot and closed to exclude the germs; but while the sterilization or the sealing is not always perfect, the contents of the bottles are kept from spoiling, during storage as well as during use, by virtue of the spices and vinegar.

Commercial catsup, chili sauce, etc., are at least theoretically similar to the home-made products. Some of the catsups and chili sauces on the market are made from good materials, but others are said to be made from the refuse of tomato canneries or from other inferior pulp, and most of them are colored with dyes and preserved with chemicals. Among the colors used are eosin, ponceau, tropeolin, magenta and others of coal-tar origin. They impart to the sauces a brilliant red color which those who are unaware that the uncolored products have a dull red or brown color believe is due to the natural color of the fruit. The objections to the use of these dyes are: First, they deceive the purchasers while they in no way improve the quality of the sauce; second, they may serve to hide inferior material used in their manufacture; third, they are possibly injurious to health; and, fourth, they put genuine uncolored goods at a disadvantage in the market.

The chemicals commonly employed as preservatives are salicylic acid, salicylate of soda, benzoic acid and benzoate of soda. The preserving agent actually present in the product is the same, whether one of these acids or its soda salt is used, since the free acid of the tomato liberates the acid of both the salicylate and the benzoate of soda. The use of any of these preservatives in catsups and sauces without informing the purchaser of its presence is a violation of the Connecticut and some other State pure food laws.

During the present year 106 samples of catsup, chili sauce and other sauces sold in Connecticut were tested for both dyes and chemical preservatives, and in addition determinations of total solids and acidity were made. Of these only 21 contained no added preservatives. Of the 95 samples with added preservatives, 67 contained benzoic acid, probably added in most cases as sodium benzoate, and 18 contained salicylic acid. The tests showed that only 20 brands were free from added dyes, and that 85 brands contained them. Of these latter goods 31 brands were colored with eosin, the common dye of red ink; 47 with ponceau, 3 with tropeolin, and 3 with other coal-tar dyes. The percentage of total solids, that is, food material, in the tomato catsups ranged from 6.03 to 42.64. The water ranged from 57.36 to 93.97 per cent. The acidity of the samples, that is, one of the most marked flavors, ranged from 0.60 to 2.20 per cent. Otherwise expressed, some of the samples were 7 times as concentrated and nearly 4 times as sour as others.

In the chili sauces, the total solids ranged from 12.02 to 37.36 per cent., and the acidity from 0.80 to 1.60 per cent.

MARKETING MUSKMELONS.

Western muskmelons are sold in large numbers in the Eastern market. They are well graded and uniform in quality, and these points of excellence have greatly assisted their popularity. Nearness to market is an important factor in the case of a tender-fleshed, delicately favored fruit like the muskmelon, and for this reason within a few years, a melon industry of considerable magnitude has been developed in Niagara county, New York. As a rule, the cultivation of the fruit has been restricted to the market-gardening regions adjacent to the large cities. The industry has developed naturally owing to favorable soil and climatic conditions. The soil ranges from light sandy loam on the "ridge" to clay loam on the lower levels. The light soil produces early melons of fine quality, to secure which special means are employed.

For the early crop the plants are started in hothouses and transplanted to the field, being carefully cultivated and protected from insect enemies and fungous diseases. The chief advantage of the house-grown plant lies in the increased earliness of the product. Sometimes there is little difference in the time of the maturity of the first fruits, but the main crop from set plants, it is claimed, is always considerably in advance of that from seed sown in the open.

According to Professor Craig, of the Cornell University Experiment Station, who has devoted much time to a study of the industry, to know just when to pick a muskmelon is a matter of judgment acquired by practical experience. Each variety has its characteristic coloring when ripe. The stem end of the fruit colors and softens first, and the melon must be picked before it has softened at this critical point.

It is as important to grade melons as peaches or apples, and no progressive fruit grower now thinks of marketing such fruits without grading them. Grading melons according to size has a distinct advantage for the buyer, since it frequently happens that one consumer wishes a small size, while another prefers larger ones. The work of grading and packing is done best in the packing house, or in a shaded corner of the field.

In Western New York 3 types of packages are used for muskmelons, namely, 12-pound baskets, bushel baskets and crates. The 12-pound basket usually holds 16 melons, while the bushel basket and crate hold 30 to 45 melons each. A favorite crate measures 9x11x22 inches. Baskets are neat in appearance and easily handled, but are not suitable for shipment to distant markets. For long-distance shipment the crate is undoubtedly the best package, economy of space and ease of handling considered. In Western New York most of the product is shipped by canal boat. Small melons like Netted Gem pack nicely in 12-pound baskets, while the larger varieties are more conveniently handled in bushel baskets.

FOOD VALUE OF BUCKWHEAT.

The grain of buckwheat and its various by-products are used to a limited extent for feeding farm animals, as are also the green plant and the straw. Buckwheat flour and grits are used as human food. The plants are sometimes grown as bee-plants for the honey they furnish, the Japanese buckwheat being especially satisfactory for this purpose. The buckwheat grain has the following percentage composition: Water, 12.6; protein, 10; fat, 2.2; nitrogen free extract, 64.5; crude fiber, 8.7; and ash, 2. It contains rather more crude fiber and less nitrogen free extract than other common cereal grains.

The hulls are woody and have no value as food. Buckwheat flour is proportionally richer in nutrients than the whole seed, as the crude fiber is practically all removed in milling. Buckwheat flour is used largely in this country for making griddle cakes or pancakes, less commonly as breadstuff and in other ways. Much is used in the manufacture of pancake flour, which consists of a mixture of flour, salt, and baking powder, so that the cakes may be made by simply mixing the material with water or milk to a proper consistency.

In Russia buckwheat porridge is a common article of diet, being eaten in large quantities by the peasants in certain regions. Buckwheat flour is often adulterated with wheat middlings. Buckwheat has been used for brewing and for the manufacture of distilled liquors.

BREAD FRUIT.

Bread fruit is a common article of diet in the West Indian islands, Hawaii, and other tropical regions. According to a Hawaiian report it is similar to the banana as regards general chemical character. In the Sandwich islands the tree produces generally 2 crops of fruit, but the successive ripening periods are short and the fruit can not be kept after it ripens. When just ripe the fruit contains little sugar. If picked at that stage it has a fibrous texture suggesting lightness and resembles somewhat a loaf of wheat bread. The flavor is agreeable and characteristic, yet suggesting slightly that of old chestnuts. Before the fruit is fully ripe it is dry and flavorless. As it ripens the starch in it changes rapidly to sugar and a peach-like aroma is developed. The fragrance is unaccompanied by any corresponding flavor, and is wholly dissipated in cooking. The pulp of the fruit if cooked at this stage is soft and somewhat gummy, yet it is said that many persons prefer it at this stage on account of its pronounced sweetness. A Hawaiian chemist found that bread fruit pulp contained 68 per cent water, 1.03 per cent sugar, and 0.83 per cent ash, the chief ash constituents being chlorides and sulphates.

Attempts have been made in Jamaica to produce a bread fruit flour similar to that which is made by drying and grinding bananas. This may assume commercial importance in the future, though it is doubtful if it is made in any considerable quantity at the present time.

I have read your magazine ever since it was first published, and consider it the best sportsmen's journal published.

Geo. H. Reimers, New York.

PUBLISHER'S NOTES.

A NEW IDEA IN HAMMERS.

The Savage Arms Company, of Utica, N. Y., has just acquired the right to manufacture and sell the Magazine and Magnetic Tack Hammer, the invention of Mr. Arthur W. Savage, the inventor of the famous Savage repeating rifle. The Magnetic hammer is the best of the kind on the market, having a permanent horseshoe magnet, being strong and practical. The Magazine tack hammer is particularly intended to save the thumbs and fingers of the weaker sex, who often suffer, from lack of skill, in aiming the uncertain hammer. The new hammer is simple. All that is necessary is to pull the trigger with the forefinger and then release it. This places a tack from the magazine on the face of the magnet, which forms the striking face of the hammer, where it is held until it is driven by one or more blows. It readily enables anyone to tack up decorative material on the side of a room, on the ceiling, or in any other position which is generally considered difficult when using the ordinary tack hammer. The Magazine hammer requires only one hand to operate, thus leaving the other hand free for holding the material to be tacked.

The tacks can be placed in the magazine of the hammer either one at a time or with one movement of the loader which goes with each hammer. Everything is simple and in plain sight, and if once used the device is considered indispensable.

HUNTING SUITS THAT SUIT.

I have had H. J. Upthegrove & Son, Valparaiso, Ind., make me 2 suits of hunting clothing; one of moleskin and the other of heavy duck. I wore these clothes on a recent trip in the mountains and subjected them to hard service in mountain climbing, crawling through jungles of dead brush, through windfalls, wading snow 3 feet deep, etc. It is a pleasure to me to be able to say that the goods proved entirely satisfactory in every way, and I feel warranted in advising all sportsmen who want clothing of the right kind to order from Upthegrove. If you will write him he will send you measurement blanks which you can fill out, and to which he will work. It would be well, in all such cases, to have a tailor make the measurements, and any tailor who makes your everyday clothes, or your Sunday clothes, would be glad to do this for you, inasmuch as the hunting clothing would probably not be in his line. However, if this is not practicable, you can have a friend measure you, and Upthegrove will do the rest. You may be assured of fair and honorable treatment at his hands. When you write him, please say you saw his ad in RECREATION.

R. H. Ingersoll & Bro., whose main store is at 67 Cortlandt St., New York, have opened a branch house at 25 West 42d St., New York, where they will keep a full line of tennis and golf goods, boats, canoes, guns, rifles, revolvers, fishing tackle, cameras, photo supplies, baseball, gymnasium and track suits, etc. Their goods have become so well known to readers of RECREATION that it is only necessary to announce the opening of this new branch in order that all sportsmen who visit New York via the Grand Central station may know just where to get their goods handily.

Mr. W. H. More has just accepted a position with the Syracuse Arms Company, of Syracuse, N. Y., to act for them as their representative on the road. Mr. More was for 16 years connected with the H. & D. Folsom Arms Company of New York, and for 7 years was Manager of their New Orleans branch. He has, until within the last month, been special gun representative for Hibbard, Spencer, Bartlett & Co., of Chicago.

It is his intention to make a personal call on every handler of guns throughout the United States.

Noyan, Quebec.

Mr. Henry L. Jespersen, New York.

Dear Sir: I cordially recommend your goods to my brother sportsmen. You may ever count on me as one of your customers. Yours truly,

E. G. Fadden.

Chester, Vt.

Drs. Phillips and Wrean,
Penn Yan, N. Y.

Dear Sirs: The hares arrived safe and are beauties.

F. A. Davis.

The Sidle telescope rifle sight which you kindly gave me in return for 12 subscriptions to RECREATION is a source of delight to myself and my friends. I thank you for sending such a valuable premium.

Robert Hunter, Neepawa, Can.

I received the Ithaca gun as premium. It is a beauty and an excellent shooter. I have targeted with several sizes of shot and it shoots wonderfully. Thank you for your kindness.

R. M. Wissler,
Bellefontaine, O.

EDITOR'S CORNER.

PADDY IS OUT OF COURT.

Pretty much everyone who reads RECREATION, and a few who do not read it, know that the Marlin Arms Company brought a libel suit against me in the Superior Court some 2 years ago. I employed the Hon. John S. Wise and his son, H. A. Wise, to defend. They demurred to Marlin's petition on the ground that he had not stated facts sufficient to constitute a cause of action. Marlin's principal averment in his complaint was that I had written all the articles printed in RECREATION during the past 3 or 4 years, criticising Marlin rifles. He knew, as well as he knows he is living, that they were all written by the men whose names were signed to the letters, and that the original letters, as printed in RECREATION, are all on file in this office, ready to be produced in court at any time. Still, Paddy has no conscientious scruples against uttering a falsehood, or even against swearing to one.

The case was carried up to the Supreme Court of the State of New York, where it was argued there by counsel on both sides, and a decision has lately been handed down dismissing Paddy's complaint and saddling the costs in all the lower courts on him. I quote as follows from the opinion of the Appellate Division:

> Concededly there is no precedent in the courts of this State for the interference of equity in a case of this character. Hence it becomes necessary to examine the complaint in the light of the established principles for the purpose of ascertaining whether it states a cause of action.
>
> It should be noted, first, that this complaint contains no allegation of any statement made against the character or conduct of plaintiff. It has not been libeled. The words published in defendant's magazine, and for which defendant is responsible whether written by him or another, criticise the gun manufactured by plaintiff. They do not charge that plaintiff was guilty of any deceit in vending, or want of skill in manufacturing, the gun. Every statement published and of which complaint is made relates solely to the quality of plaintiff's rifles and their relative desirability as compared with rifles manufactured by others.
>
> The plaintiff's first excuse for invoking the aid of equity—to avoid a multiplicity of actions at law—is evidently not well founded, for plaintiff has not only failed to state facts sufficient to constitute one action at law, but it has affirmatively stated facts which show that it has not an action at law. In such a situation it goes without saying that a court of equity can not be invoked to aid a plaintiff unless some other ground for its interference be shown.
>
> The constitutional guaranty of freedom of speech and press, which in terms provides that "every citizen may freely speak, write and publish his sentiments on all subjects, being responsible for the abuse of that right; and no law shall be passed to restrain or abridge the liberty of speech or of the press" (State Constitution, Art. 1, Sec. 8), has for its only limitations the law of slander and libel. Hitherto freedom of speech and of the press could only be interfered with where the speaker or writer offended against the criminal law or where the words amounted to a slander or libel of a person or corporation or their property, and the guaranteed right of trial by jury entitled the parties accused of slander or libel to have 12 men pass upon the question of their liability to respond in damages therefor and to measure such damages. But the precedent which the plaintiff seeks to establish would open the door for a judge sitting in equity to establish a censorship not only over the past and present conduct of a publisher of a magazine or newspaper, but would authorize such judge by decree to lay down a chart for future guidance in so far as a plaintiff's property rights might seem to require, and, in case of the violation of the provisions of such a decree, the usual course and practice of equity would necessarily be invoked, which would authorize the court to determine whether such published articles were contrary to the prohibitions of the decree, and, if so found, punishment as for a contempt might follow. Thus a party could be punished for publishing an article which was not libelous and that, too, without a trial by jury.
>
> Our conclusion, from a review of the authorities, therefore, is, that all well-considered decisions agree in determining it to be the law that a court of equity has not jurisdiction to grant the relief to secure which this suit was drawn.
>
> The order of the Appellate Division should be reversed and the judgment of the Special Term affirmed, with costs in all courts.

Paddy, it's your next move.

A REAL GUIDE.

It is always a pleasure to recommend a good guide, and W. H. Wright, of Spokane, Wash., is one of that kind. He does not pose as a guide. He has business interests of his own that occupy a good deal of his time, yet he can frequently leave home for a month or 2, and in such cases he is willing to take parties out and show them where to find fish and game, or how to acquire health and strength. I recently made a trip with him in the mountains, and he proved a really great man on the trail. He is as strong as an ox and has a constitution like that of a grizzly bear. He will climb mountains, or chop trail, or pack a big load from daylight till dark. Then he is ready to make camp, to chop more wood, to cook a meal, to cut cedar boughs and make beds 2 feet deep; or to do anything that is necessary to make you comfortable. He can do more useful things in an hour than any man I ever knew in camp. He is a tip top cook, an all around mechanic, and so good a woodsman that you might drop him anywhere in any of the great forests of this country and he would find his way out without making a mistake.

Last summer he drove a 4 horse team for a tourist outfit from Ogden, Utah, to Portland, Oregon. In addition to this, he took care of all the horses, pitched the tents and made camp every night; did most of the cooking for 7 people; mended the wagon or harness whenever they broke down; went out and killed game or caught fish when needed for the table, and in fact was equal to any and every emergency that presented itself on that long journey.

Last winter Wright took an invalid to Mexico and gave him a long tour over the plains and through the mountains of Sonora and Chihuahua. On that trip he drove team and wrangled horses; he guided, cooked meals when necessary, and, in fact, was the all around manager, secretary-treasurer, packer, commissary-sergeant and chief cook of the outfit.

Any man who can get Wright to take him on a hunting or prospecting or health-seeking expedition is in big luck.

A MAGAZINE FOR GAME HOGS.

There are several editors of so-called sportsmen's journals who hang around the outskirts of the range and try to round up all the game hogs that have been branded by RECREATION. Here is the substance of a postal card sent out from the office of one of these publications:

Dear Sir:

Wrap a dime in this card, enclose it in an envelope, and mail it to us at our risk. We will send you a copy of the ——, the handsomest sportsman's magazine published. . . . There is no such word as "Game Hog" in our lexicon of sport. Do not delay. This is one of the good things which you should not miss.

The statement that the editor has "no such word as game hog" in his lexicon is purely a sop to the swine. If he had known anything of grammar he would have said, "There are no such words as game hog," etc., instead of "there is no such word"; but a man who invites game hogs to wallow in his yard can not be supposed to know much of the English language.

Here is a copy of a letter which a staunch friend of game protection wrote the aforesaid editor, on receipt of his postal card:

I have received your invitation to send a dime and get a copy of your journal in return. I see plenty of self praise in your prospectus, but not one line to indicate that your magazine is to be devoted to game protection. I also note the following: "There is no such word as 'game hog' in our lexicon of sport." You would better revise your lexicon at once. Mr. Shields, through RECREATION, has done more for game protection than all the other sportsmen's periodicals combined, consequently he has the respect and support of a host of men and women who place game protection before game destruction. I decline your invitation with thanks.

H. M. Beck, Wilkes-Barre, Pa.

NO PROPERTY RIGHT IN GAME.

The Supreme Court of the great State of California has recently handed down a decision which will prove of interest to many persons. It has long been held by many game dealers, hotel men and persons who do not hunt but who like to eat game, that any law which aims to prohibit the sale of game is unjust to those who do not hunt, is partial to hunters and may therefore be termed class legislation. This question has been adjudicated in the courts time and again, and the higher courts have always held that any State may, in the exercise of its police power, prohibit the sale of game within its borders, or the shipment thereof beyond the State limits. There is a section of the California game laws which says:

"Every person who buys, sells or offers or exposes for sale, barter or trade any quail [or certain other game] is guilty of a misdemeanor."

Several game dealers of San Francisco held that this law was unconstitutional. Therefore a test case was made of it and taken into the courts. In deciding this case,

the Supreme Court held that all game is really the property of the State; that sportsmen kill animals only by sufferance and that the Legislature in granting favors can make what qualifications may seem proper. It is stated that the prohibition in reference to the sale of game does not destroy a property right, because no such right exists.

NEWFOUNDLAND LICENSE LAW AMENDED.

The lawmakers of Newfoundland have amended the game law by imposing a license of $100 each on all non-residents who may see fit to hunt on that island. I am informed by a subscriber in St. Johns that this is purely the result of the swinishness displayed by many American hunters who have gone there in years past. It is well known that the old law provided for 3 classes of license: one costing $40 and allowing the hunter to kill 3 caribou; another costing $60 and authorizing the killing of 5 caribou; and still another at $80, under which the hunter might kill 8 caribou. Many of our American game hogs, however, went over there, took out the cheapest license and then killed 10 to 20, or 30, or even 50 caribou each. The intention of the Legislature in passing the present law was to keep such men off the island entirely, and there the action of the lawmakers will meet the hearty approval of hundreds of decent men. Few can afford to pay the present license, and some honest men who would like to go over there and kill 3 caribou must suffer because of the devilish greed of the other kind; but it was always thus. Honest men have, from time immemorial, been oppressed by laws that were only intended to restrain thieves and cut-throats. This is another instance of it.

Aenholt Stoick, Albert Paul, Henry Bohlman, John Kunde, Leopold Stoick and John Schlosser, farmers, living in Lac Qui Parle county, Minn., were arrested near Big Stone lake, in that State, in April last, with a seine and 3 sacks of fish in their possession. The sacks contained about 300 fish, among them being a number of black bass. Mr. A. E. Austin, game warden, of Montevideo, who made the arrest, lined the prisoners up in court, when they demanded a jury trial. This was accorded them, and the men swore they had not been seining; that they had found the 3 sacks of fish on the river bank, and that they had simply been spearing suckers. The story was altogether too fishy for the jury, and the defendants were all found guilty as charged. The court fined them $25 and costs each, the total amounting to $192. The money was paid into court and the prisoners were allowed to depart. The climate of Minnesota is exceedingly unhealthful for game and fish law violators.

The fish pirates about the Lewiston, Ohio, reservoir, were on the warpath again a few weeks ago. Messrs. Norvell and Trevison, Deputy State Game Wardens, raided and destroyed certain nets belonging to the pirates, and the next time the wardens appeared on the scene 8 shots were fired at them by men concealed in the brush about the reservoir. The officers were unable to get sight of the men so as to return the fire, but assert that in future they will be prepared for these law breakers, and if any more shooting is done they hope to have a hand in it. I trust the officers may succeed in getting a line on the lawbreakers, and that they may make good, quiet corpses of them.

Two years ago Charles Hoffman, of Alps, Rensselaer county, N. Y., violated a State game law by snaring 2 ruffed grouse and killing a rabbit in close season. The game warden got after him and Hoffman left the county. A month or 2 ago he turned up again supposing, of course, the complainant had forgotten all about the case; but not so. Officer Brown and Stephen Horton, representing the Rensselaer County Rod and Gun Club, swooped down on Hoffman, took him into court and a fine of $59.40 was imposed on him, which he paid. It would be well for Hoffman to remember that law keeps a long time in Alps.

A subscriber sends me a clipping from a Concord, N. H., paper, stating that Fred Higgins, Adelbert Smith and Jas. H. Durant, of North Sonbornton, assisted by 6 dogs, killed a doe near that town in March last. The men were arrested, taken before a justice and fined $100 each. My only regret is that the good people of North Sonbornton did not then take these men, horsewhip them soundly, and run them out of town. No game law ever enacted is sufficiently severe on a lot of brutes who will run down a deer and kill it in midwinter, simply because the poor brute gets so hungry as to come into a settlement to get food.

Frank Reszka and Frank Bruski, of Winona, Minn., have been in the habit of hunting in Wisconsin opposite Winona in close season. In March last Mr. Schultz, game warden of Wisconsin, went after

these 2 butchers, accompanied by Elwin Merlin, marshal of Trempeleau. The officers caught the 2 Polanders in their duck blind, took them into court, where a fine of $25 and 30 days in jail was assessed against Reszka and $20 and 20 days in jail against Bruski. This will give these men plenty of time to make up their minds whether it pays to violate the Wisconsin game laws, even if they do live in Minnesota.

George Tucker, of Brenham, Texas, writes a long story to a Western sportsman's journal in which he tells and, in fact, openly boasts that he and 5 friends killed 5 antelope in violation of the Texas law. The editor of the aforesaid journal prints the story without a word of condemnation or comment of any kind. That is the kind of stuff most editors of sportsmen's journals are looking for. All they seem to want in the way of entertainment for their readers is stories of killing, whether legal or illegal, whether sportsmanlike or whether the work of game pot.

Charles Ferber, of Scranton, Pa., went trout fishing in Wayne county, in April last, and made a good catch. On his way home a game warden held him up and sized up his fish. Eleven of these proved to be less than 6 inches in length, and the warden ran Ferber in. A local justice of the peace fined him $10 for each short, making a total of $110, which Ferber paid and went on his way, a sadder but wiser man. He would better have waited another year for those trout to grow.

Dick Rock, an old-time hunter and guide, who lived on the bank of Henry's lake, Idaho, was killed some time ago by one of his pet buffaloes. He had several buffaloes, moose, deer, etc., on his ranch and was very fond of them. Rock also contributed to the cause of game protection and propagation by catching and shipping to Eastern Zoological parks, good specimens of mountain sheep, moose, buffalo, etc. His loss is deeply felt by all who knew him.

I am informed that 30,600 deer skins were shipped from San Antonio, Tex., last winter. Yet, there are men in Texas who pretend to be sportsmen, and who, when asked to aid in any effective way in the procuring and enforcement of game laws, make all kinds of excuses. If the sportsmen of that State allow the slaughter to go on at the present rate, they will soon have nothing better than sparrows to shoot, and it will serve the alleged sportsmen right.

A man in Greenwood, Miss., advertises 3 deer dogs for sale, and states, as a reason for wishing to sell, "I have killed all the deer in my neighborhood." That is a case of a game hog and 3 hounds going into partnership to exterminate the game. Hunting, like politics, sometimes makes strange bed fellows.

A CROSSING OF THE DANUBE.

Some years ago I was one of a party seated around a camp fire in a Bavarian forest. Many stories, that would have taxed the credulity of any but sportsmen, had been told. When it came the turn of J., a veteran forester, he permitted his fancy to soar in this wise:

"I was hunting on the lower Danube in a forest belonging to the crown of Austria. My companion shot a bull elk. The animal plunged into the river, which is there about 2 miles wide, crossed and lay down on the other shore. There was no boat within miles of us, but we were loath to lose our game. While casting about for means of crossing we found a patch of wild cucumbers. All plant life had thriven wonderfully that year and the fall had been exceedingly dry. We were therefore not surprised to find that some of the cucumbers had reached a length of 6 or 7 feet. They were as dry as boards. Selecting the 2 largest we fashioned them into boats by cutting holes in the tops. Then we lashed them together and after tying 2 dry seeds to sticks, to serve as paddles, we crossed the river, my companion in one cucumber boat and I in the other.

"We found the elk apparently dead and having laid him across the boats, we started to return. The additional weight sank us dangerously low, but as the river was only 2 feet deep we kept on. When a few hundred yards from shore the elk, which had been merely stunned, recovered consciousness and kicked the boats to flinders. I would have taken a shot at him before he reached shore had I not been compelled to rescue my companion who could not swim."

"But," cried the listeners, "you said the water was only 2 feet deep."

"And that is quite true as regards its normal depth. But the carp in the Danube are in the habit of feeding on brewers' grains thrown into the river. That stimulating food often makes them so dizzy that they spin around violently until they wear holes in the bottom. Some of the holes are 10 feet deep and yards across. It was in one of the largest that my friend fell, so you can understand his danger."

Petaluma, Flatwillow, Mont.

Schlitz

THE BEER THAT MADE MILWAUKEE FAMOUS

Beer is barley-malt and hops---a food and a tonic. Just a touch of alcohol in it.

Not a beverage known to man is more healthful, if the beer is right.

'Tis the national beverage, from childhood up, with the sturdiest peoples of the earth.

To the weak, it's essential; to the strong it is good.

BUT—the beer must be pure.

Impurity means germs, and germs multiply rapidly in any saccharine product like beer.

And the beer must be old.

Age means perfect fermentation. Without it, beer ferments on the stomach, causing biliousness.

Schlitz beer is brewed in absolute cleanliness.

It is cooled in a plate glass room, in filtered air.

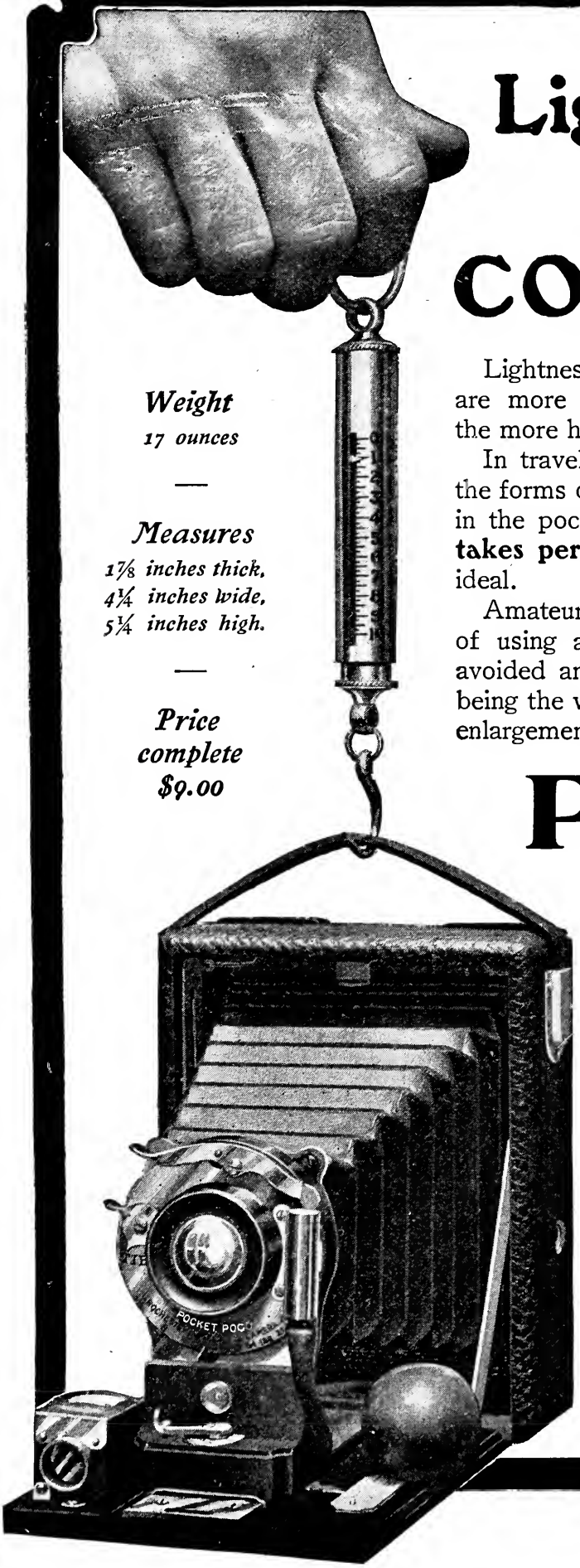
Then it is filtered; then aged for months in refrigerating rooms. After it is bottled and sealed every bottle is sterilized.

Not a germ can exist in it.

These costly precautions have made Schlitz the standard for purity wherever beer is known.

You can get it just as well as common beer if you ask for it.

Ask for the Brewery Bottling.



Weight
17 ounces

Measures
1⅞ inches thick,
4¼ inches wide,
5¼ inches high.

Price complete $9.00

Light, Small and COMPLETE

Lightness and compactness are merits that are more appreciated by the camera owner the more he uses his camera.

In traveling, hunting, fishing, yachting—all the forms of out-door life—a camera that goes in the pocket, weighs next to nothing, **and takes perfect pictures** is the photographic ideal.

Amateurs are realizing the manifold benefits of using a small, good camera. Waste is avoided and the small plate or film negatives, being the work of a fine lens, make beautiful enlargements. The

Pocket Poco

for time or instantaneous exposures is a completely equipped instrument for artistic work. It is fitted with a rapid rectilinear lens, a ground glass with actuated spring back for the use of **plates or films;** an automatic shutter; a 6-inch bellows; a perfect finder for snap-shot work. Examine it at your dealer's, or send for book describing the full line of Pocos for 1902.

Rochester Camera and Supply Co.
522 Poco Street, Rochester, N. Y.

AMATEUR PHOTOGRAPHY.

"For sport the lens is better than the gun."

I wish to make this department of the utmost use to amateurs. I shall, therefore, be glad to answer any questions and to print any items sent me by practical amateurs relating to their experience in photography.

7th ANNUAL COMPETITION.

RECREATION has conducted 6 amateur photographic competitions, all of which have been eminently successful. The 7th opened April 1st, 1902, and will close November 30th, 1902.

Following is a list of prizes to be awarded:

First prize; A Long Focus Korona Camera 5 x 7, made by the Gundlach Optical Co., Rochester, N Y., fitted with a Turner-Reich Anastigmat Lens and listed at $85.

Second prize: A No. 3 Folding Pocket Kodak, made by the Eastman Kodak Co., Rochester, N. Y., fitted with a Bausch & Lomb Lens Plastigmat Unicum Shutter, and listed at $61.50.

Third prize: An Al-Vista-Panoramic Camera, made by the Multiscope and Film Co., Burlington, Wis., and listed at $40.

Fourth prize: A Wizard C Camera, 4 x 5, made by the Manhattan Optical Co., Cresskill, N. J., with B. & L. Iris Diaphragm and Leather Carrying Case; listed at $33.

Fifth prize: A Waterproof Wall Tent, 12 x 16, made by D. T. Abercrombie & Co., New York, and Listed at $32.

Sixth prize: A Gold Hunting Case Watch; listed at $50.

Seventh prize: A Tourist Hawkeye Camera, 4 x 5, and made by the Blair Camera Co., Rochester, N. Y., and listed at $15.

Eighth prize: A Bristol Steel Fishing Rod, made by the Horton Mfg. Co., Bristol, Conn., and listed at $6.

The 10 next best pictures will each be awarded one dozen 8 x 10 Carbutt Plates, made by the Carbutt Dry Plate Co., Wayne Junction, Philadelphia, Pa.

The 10 next best pictures will each be awarded one dozen 5 x 7 Carbutt Plates.

The 10 next best pictures will each be awarded one dozen 4 x 5 Carbutt Plates.

A special prize: A Goerz Binocular Field Glass, listed at $74.25, will be given for the best picture of a live wild animal.

Subjects are limited to wild animals, birds, fishes, camp scenes, and to figures or groups of persons, or animals, representing in a truthful manner shooting, fishing, amateur photography, bicycling, sailing or other form of outdoor or indoor sport or recreation. Awards to be made by 3 judges, none of whom shall be competitors.

Conditions: Contestants must submit 2 mounted prints, either silver, bromide, platinum or carbon, of each subject, which, as well as the negative, shall become the property of RECREATION. Negatives not to be sent unless called for.

In submitting pictures, please write simply your full name and address on the back of each, and number such prints as you may send, 1, 2, 3, etc. Then in a letter addressed Photographic Editor, RECREATION, say, for instance:

No. 1 is entitled —— ——.
Made with a —— —— camera.
—— —— lens.
On a —— —— plate.
Printed on —— —— paper.
Length of exposure, —— ——.

Then add any further information you may deem of interest to the judges, or to other amateur photographers. Same as to Nos. 2, 3, etc.

This is necessary in order to save postage. In all cases where more than the name and address of the sender and serial number of picture are written on the back of prints I am required to pay letter postage here. I have paid as high as $2.50 on a single package of a dozen pictures, in addition to that prepaid by the sender, on account of too much writing on the prints.

Any number of subjects may be submitted.

Pictures that may have been published elsewhere, or that may have been entered in any other competition, not available. No entry fee charged.

Don't let people who pose for you look at the camera. Occupy them in some other way. Many otherwise fine pictures have failed to win in the former competitions because the makers did not heed this warning.

TONING VELOX AND BROMIDE.

In March RECREATION you state that you can supply formula for toning Velox and bromide prints to a number of colors. I should like that formula, if you please.

Wm. T. Perry, Worcester, Mass.

ANSWER.

For red, orange or brown, over expose 10 to 20 times, and to the regular developer with bromide of potash add the following restraining solution:

Bromide of ammonia	½ ounce
Carbonate of ammonia	½ ounce
Water	10 ounces

Dilute the standard M-Q developer with its bulk of water and add 3 drams of above restraining solution to each ounce of developer used. Then develop patiently as the finer reds are produced, providing the exposure has been long, by prolonged development, perhaps as much as 20 minutes being necessary. Those who fail to obtain excellent results should try a much longer exposure than they first gave. The intermediate colors are yellow, orange and brown, the red, a fine Bartolozzi, coming last of all. When secured, rinse, fix and work as usual.

Another red is obtained by immersing a print that has been developed and fixed as usual in the following:

(1) Water .....20 cubic centimeters
10 per cent solution of copper sulphate ..... 1 cubic centimeter

And enough 10 per cent solution of ammonium carbonate to dissolve the precipitate formed and produce a deep, clear blue.

(2) 10 per cent solution of potassium ferricyanide .....25 cubic centimeters
Water .....150 cubic centimeters

Add 2 to 1. In this muddy liquid the black and white velox will become a rich red. If the solution be diluted, a purple may be obtained in it.

To obtain green, after turning prints red mix the following bath and use it at once. It does not keep:

Water ..... 8 ounces
Potassium ferricyanide, 10 per cent solution .....24 minims
Glacial acetic acid..... 1 ounce
Uranium nitrate, 10 per cent solution .....24 minims

If the whites become discolored, soak prints in a tray of clear but not running water, and if a few changes of water should not clear the whites in 20 minutes immerse in a one per cent solution of sulphocyanide of ammonia until the whites bleach, which they should do rapidly.

To obtain green, after turning prints red in the last bath given, immerse them in the following solution and then wash sparingly:

Water ..... 3 ounces
Parchloride of iron, 10 per cent solution .....30 minims

Another green may be obtained by adding 2 drams of a 10 per cent solution of uranium nitrate to the bath given for blue. The green will wash off in running water, hence the prints should be merely rinsed in a tray of water.

Blue tones are secured in the following bath:

10 per cent solution of citrate of iron and ammonia .....2 drams
10 per cent solution of potassium ferricyanide .....2 drams
10 per cent solution of nitric acid..4 drams
Water .....4 ounces

Immerse the print until a rich blue is obtained, then wash well. The bath keeps. If to this bath is added its bulk of water, a blue-black will result, with grayish halftones.

Para-amidophenol developer produces the finest warm black tone. Use the formula with carbonate of potash given in the directions with the developer, or bleach in

Bichloride of mercury.....12 grains
Muriatic acid c. p..... 2 drams
Water ..... 6 ounces

until the image is gone. Then wash well and immerse the print in combined toning and fixing bath diluted to 10 times its bulk. Wash well.

Sepia tones are to be had with old para-amidophenol developer that has been used considerably, or in

Hypo-soda ..... 5 ounces
Powdered alum ..... 1 ounce
Boiling water ..... 25 ounces

First dissolve the hypo, then add the alum. This gives a turbid solution, which is to be used unfiltered. The older it is the better, and if used hot it affords results that may take a day or more if used cold. The addition of a trifle of silver nitrate or some printing-out paper clippings will greatly improve the bath if it works slowly. An old bath, used cold, produces the finest prints, though, as stated, it works slowly. After the desired color is obtained, sponge the backs and faces of the prints well and wash thoroughly. E. W. N.

BALD HEADED PICTURES.

Formerly a blank white sky in a photograph was looked on favorably, and as evidence of great care in the manipulation. I have seen many landscape views in which the composition was faultless, yet the sky was a perfect blank, entirely destroying the harmony of the picture and giving a feeling of incompleteness that was aggravating. In negative making the actinic nature of the blue in the sky, although plainly seen by the eye, destroys the harmony or true color value by persistently coming up a dense black deposit on the negative, and even before the other details of the picture are fully developed. With ordinary plates this is hardly possible to avoid, as the plate catches the actinic rays, and the eye sees the luminous rays. Again, the farther those rays have to travel the more sensitive they become, proof of which is that near objects always require a longer exposure than distant objects in a landscape. The darkest part of a cloud will reflect more actinic rays than the brightest part of a landscape, although in color value to the eye the cloud may appear much darker.

Many ingenious devices have been used to cut off the superfluous light from the sky, such as a sky shade in front of the lens, or a diaphragm with a graduated slot presenting a full opening to the foreground and gradually cutting off the top light. These appliances work well in special cases,

but will not answer all requirements, and besides, have to be adjusted for each separate view. Instantaneous views will, when the clouds are pronounced and the landscape well lighted, develop simultaneously to something like the true value; but instances like these are rare except in seascapes.

Orthochromatic plates and a color screen will do wonders in rendering sky and landscape in true color value, especially on a day when the sun is setting in a red and purple Turneresque sky, or when there is a soft haze over all. But on a bright summer day, when the atmosphere is clear and beautiful rolling white clouds chase each other over a deep blue sky, the orthochromatic plate and the color screen, together or separately, ignominiously fail to render anything like the effect we have tried to reproduce in our print.

After trying all schemes to catch the fleeting cloud and the landscape together on the same plate, I find the only sure way to combine the 2, with any degree of satisfaction, is by the old process of double printing. Of course this means extra work in printing and the use of 2 negatives, but we have the satisfaction of being able to produce a picture perfectly balanced and complete in all its details. For example, take a picture showing a long stretch of landscape. If a suitable sky be printed in, shading it so as to produce the brightest light at the horizon and gradually darkening toward the zenith, it heightens the atmospheric affect and helps the perspective in the picture.

It is advisable to have a variety of cloud negatives on hand to avoid monotony, and they should also be lighted from the right and from the left to suit various views. It is not necessary to have orthochromatic plates on which to make the cloud negatives. In the sky there is no trace of color save the azure blue and the white of the clouds. By the use of a simple ray filter, dark or yellow, according to the contrasts desired in the effect, the most beautiful cloud negatives can be produced on any make of plate or film. The yellow of the screen changes the blue of the sky into a green, which photographs in its true color value and the white clouds stand out clearly. It is not a bad idea to have a set of negatives of clouds on film, as they can be printed from either side to suit right or left pictures, and if printed through the celluloid the softness given would be an improvement rather than a detriment.

Looking at a sunlit landscape the eye does not first take cognizance of the clouds, but of the landscape, therefore the clouds should be printed to have the same effect in the picture. The best effect is when the cloud negative is printed until the deepest shadows of the clouds are just distinctly visible. Were the clouds printed in too strongly it would enthrall the gaze of the beholder to the detriment of the picture. Of course this is different when it is desired to render a pure cloud effect. Then the clouds may be printed in to the full strength of the rest of the view, but in this case it is a rule never to have the horizon line above one-third of the picture, the sky and clouds occupying the remaining two-thirds.—W. J. Howell, in the Camera and Dark Room.

NOT SATISFIED WITH AWARDS.

Worcester, Mass.

Editor RECREATION:

I have read your answer to H. G. Gosney, in May RECREATION. I had no intention of making any remarks about the recent photo competition, but since seeing your letter I have decided to express myself freely in the hope that a future contest may be decided with some consideration as to the merits of the photographs. Take the fishing scene that was awarded first prize. That is a good photograph, but I should like to know what the fact that it was taken with an expensive lens has to do with the awarding of a prize. That same picture can be duplicated by anyone who has a view camera and an achromatic lens costing perhaps $3. An expensive lens is not one of the requirements of photography, especially on photos of that nature where the subjects are posed.

Regarding the photo of the 3 deer that was awarded a special prize: You said in your answer to Mr. Gosney, "There are other elements that must be taken into account in awarding a prize to a picture than the difficulty of getting it." The other elements evidently were not taken into account with this photo, as its only redeeming feature is that it is a somewhat rare subject to get. I will admit that it was taken under unfavorable conditions, but in a photographic contest photographs are to be considered and not conditions. Detail is entirely lacking. The water, shrubbery, rocks, and practically every tree have been carefully engraved in by hand. That is not a photograph. It is an engraving.

The 11th winner was a tame goose on nest. That is certainly a wonder for a prize winner! The nest is made of sticks and the bird has a head, but both are so much out of focus that they are hardly recognizable.

The most interesting awards of all are shown together on page 105 in February issue. "Howling Coyote" gets prize 4, while "Resting" gets 8. You have said that an expensive lens counts for a good deal in the awarding of a premium, yet 8th prize

winner was made with a good lens while 4th was made with a cheap achromatic, the lens not more than $2. You have praised the fishing scene because of the great detail and sharpness it possessed, yet you have given 4th prize to a photo that has no detail in any part of it; while "Resting," which has good detail for the subject, gets only 8th. A coyote taken at the distance that was should show every hair on him, while in this photo the outline of the head and ears had to be touched up or they would hardly have shown. The only part of the picture in focus is a strip of sand about 8 feet back of the beast. Why should a tame pet coyote, all out of focus, standing against a background that shows nothing interesting, be awarded any place at all? The cat shown on the May cover and awarded 69th place is so far superior to the photo awarded 4th that a comparison would be impossible. So much for the past competition. Now for the future.

Can you not award premiums so there will be some degree of fairness?

Why bar professionals from competition? They can not and never could take a better photo out of doors than an amateur.

Photos of nests and eggs should not be considered. Where is there any more merit in one of this kind than in a simple view of a tree or flower?

Judge the merits of a picture as a photograph and take into account the difficulty of obtaining it, but let the make of lens or camera with which it was taken be unknown to the judges.

Have professional photographers for judges. Have all photos claimed to be from living animals or birds passed on by someone who knows something of the subject.

Do not give prizes to one who sends pictures of captive birds as wild ones. As soon as a bird becomes a captive it is the same as a tame one a d ought not to be considered.

If you will adopt some such lines and have everything distinctly understood at the start, there will be no cause for dissatisfaction. As it is now you are simply encouraging the taking of fraudulent photographs, by awarding prizes to fake pictures and turning down those that are legitimately made. Such a competition would be strictly fair in all particulars.

Charles A. Reed.

THE WORKROOM.

Negatives distorted by tilting the camera and not having the necessary swing-back can be corrected by the following device: Instead of making the print by contact, make it by projection. Put the negative into an enlarging camera or any outfit used for making bromides. Adjust your image on a piece of white paper or card to the size you wish and then swing, or incline forward or backward the top of the carrier. If the top of the image is too narrow, tip it backward until the lines are straight; if the top is too wide, tip it forward. Always have the part of the image which is too wide nearer to the lens than the narrower parts. After the perpendicular lines have been corrected, focus on the center of the image, which is about half-way between the 2 extremes. Then stop the lens down as far as the other conditions will permit. By using F 32 to F 64 you will get sufficient depth of focus for the most severe cases. The so-called gaslight papers are too slow for this work, and a bromide paper of some kind must be used. It will work well with the same developer, but may require more bromide.

To keep prints from curling it is not necessary to soak the whole print in a solution of glycerine in water. This makes the paper flabby and less able to resist the strain of the film. It is better to apply the glycerine solution to the surface of the picture. Draw a layer of absorbent cotton over the edge of a piece of glass. An old 4 x 5 negative will do. Then, over the outside of this stretch a piece of muslin and slip a rubber band. The strength of the glycerine solution depends on the nature of the print, or rather the thickness of the gelatine coating; but it is safe to begin with one part of glycerine to 3 or 4 parts of water. This is about a medium strength. A few trials will show the strength best suited to the paper. If, after thorough drying, the prints appear moist to the touch, less glycerine can be used. When, on the other hand, they still show a tendency to curl, use a stronger solution. Of course, only gelatine papers are suitable for this treatment. The prints must be dry when treated, and the glycerine solution can conveniently be kept in a small tray.

Those who use amber chimneys, with Welsbach burners, in the dark room are undoubtedly familiar with the tendency these chimneys have to break when they are expected to do service. Their diameter is too small, they are too short, and the least flaw in the mantel will cause them to break. For all around usefulness an orange or ruby-colored wine bottle, cut off at the top and bottom, is much to be preferred. It excels in color, diameter, height, durability, and price. The cutting is simple. Wind a cotton string 3 or 4 times around the part to be cut, and tie it. Saturate the string with either alcohol or kerosene and ignite, turning the bottle slowly till the flame has become extinguished from exhaustion. Dip the bottle perpendicularly into a pail of cold water. The instant the water reaches the string the bottle will fly

apart. After having cut off the top and bottom, smooth the edges with a file and the chimney is finished. For dry plates, this is still too strong a light, and must be surmounted by a larger box, the openings of which are covered with ruby glass or fabric. A similar way of cutting bottles is by means of a pointed flame produced by a blow-pipe. A small spot is heated and a drop of water will start a crack. The flame is then applied a little in advance of it, and the crack will slowly follow the flame. By this method many elaborate designs can be produced.—Geo. S. Becker, in Western Camera Notes.

THE COON WAS NOT HARNESSED.

Oxford, Md.

Editor RECREATION:

Mr. Homer G. Gosney, in May RECREATION, complains because his woodcock picture did not receive higher consideration by the judges in your late photo contest, and seems to blame you. He disclaims any desire for a higher prize, yet seems dissatisfied because he did not get one. I am glad to have friend Gosney give an honest opinion of my efforts at amateur photography, but when his observations are false as to matters of fact, I request a small space to refute these reflections, as many of my friends are regular readers of RECREATION.

In criticising the picture "Besieged," Mr. Gosney calls attention to a "string, or rope," which, he claims is tied to the coon's collar. That is not true. No string or rope hampered the movements of this unfortunate raccoon. He was caught with coon dogs, the same as any other coon, and as shown in the picture, along a shore familiar, no doubt, to all his ancestors. If the water was not sufficiently "choppy" to meet Mr. Gosney's ideas, it was the fault of the wind and not of the camera.

I send you by express the negative from which the picture "Besieged" was made, that you may pass your own judgment as to whether the coon was tied and the string held by a man on the bank, and whether the water effect is not fully shown in the development of the plate.

The scratch on one end of the negative was made after exposure and before development, in an effort to get the plate out of the plate holder with the point of a small knife blade. The plate simply stuck in the holder and was scratched in the effort to pry it out.

J. E. Tylor.

I have examined the negative carefully, under a powerful glass, and emphatically endorse all Mr. Tylor says of it. There is no evidence in it of any string having been used. There is a scratch in the film which was no doubt made with a knife as stated.—EDITOR.

Mr. Gosney asked your readers to judge the 3 pictures. He did not give justice to the picture entitled "Besieged." If the coon had been held by a rope would the cord stand out straight or would it be slack? This scratch on the photo, for that is what it appears to be, is out straight.

Did you ever approach the nest of a woodcock and see it slanting the way Mr. Gosney's picture shows it? His picture looks as if he were right up on the bird. Would that bird stay there while Mr. Gosney got his camera in order? The birds are sensitive about being approached.

F. A. Greenhawk, Easton, Md.

SILHOUETTES BY PHOTOGRAPHY.

There is a considerable advantage to be derived from studying silhouettes which is hard to find in the detailed picture. If one really wishes to impress the memory of a friend's face indelibly on the mind a study of the silhouette is a necessary preliminary. There we find certain characteristics all separated from the confusing details and in the outlines of several silhouette poses we secure truths that are worth study.

If only desired for the mere fun of the thing photographic silhouettes are certainly worth anyone's while and will be found easy to make and entertaining. I have an album of these pictures on a table in the reception room and can always depend on it to while away a little time in entertaining a caller who may be acquainted with some of the originals of my silhouettes. Guessing who's who is no end of fun sometimes, though as a rule silhouettes are about as easy to recognize as the best likenesses. The only way they may be made doubtful enough to guess about is by using odd poses—not always a profile or profile groups.

The best silhouette that can be made is made by photography. It is far in advance of anything that can be cut out of black paper, I care not how deft the hand, for it is truer and has far more in it. Attempt to cut out a figure from a print and then blacken it. The result will not have all those little touches that can not be done with scissors, and though good it will not compare with a photographic silhouette.

I do not know that I follow the most approved means of obtaining my silhouettes, but it does nicely nevertheless and I will describe it.

I simply pose my subject in the window, a sunny one, draw the white curtain, expose a back plate 1-10 second and develop with a developer to which extra alkali

has been liberally added. That brings up the high lights in a wink and leaves my subject clear glass. That is all there is to it except to print in Velox portrait, keep the whites clean and get a deep black tone.

Estelle G. Melrose, in The Photo-American.

A BUDGET OF QUERIES.

Please give formula for toning bath for P. O. P. paper, which does not require preliminary washing before toning in gold bath, one by which brown to blue-black tones can be secured.

How can chemical or light fog be removed from plates?

Give formula for intensifier, which will intensify shadows, etc., before the high lights.

Please give formula for a good local intensifier.

Can a rapid rectilinear lens be used as a fixed focus lens, either with double combination, or single lens, at different distances.

What camera and lens do you regard as the best?

Are gelatine prints, toned in single baths, permanent?

Are developing papers, toned in single baths, permanent?

J. R. Hoffman, Johnstown, Pa.

ANSWER.

A formula for gold toning after fixing, appeared several months ago in RECREATION in an article on that subject by E. W. Newcomb. There is none that requires no preliminary washing and gives good results.

If but trifling, rub with chamois pad, wet with alcohol. If strong, use Farmer's reducer.

None is known.

Dab blue water color paint on the back of the negative, where you want local intensifier. Pat it gently with forefinger to get it even.

Yes, if you set it for a certain distance, and then make sure to use it for that distance only.

The only means of deciding which camera is best, is to study the catalogues carefully and see which has the most features you require. All are the best.

Gelatine prints properly toned and well washed are permanent, whether single or double bath is used.

Developing papers are also permanent if properly fixed and washed.—EDITOR.

SNAP SHOTS.

I often have Velox print out unevenly with negatives that make good solio prints. What would be a cause?

How is a positive obtained from a positive, as a picture printed in a magazine when the printers have only a picture to work from?

Are isochromatic and non-halation plates more difficult to develop than the ordinary extra rapid plate?

Is there any better developer for Eastman plates that that put up by the Eastman Company?

Will printing Velox for 4 or 5 minutes help the prints when they develop too slowly with 3 minutes exposure?

G. V. Mc., Towanda, Pa.

ANSWER.

Perhaps you over expose them and the prints jump up too quickly. Try shorter exposure and longer development.

By photographing the picture on a copper plate and then etching; in other words, photo engraving. It is a process far beyond the amateur and of no use to anyone but those who use it commercially.

Iso plates are extremely sensitive to red light. They must practically be put in the holders in the dark and covered afterward, while being developed. Backed plates are no more difficult to handle than unbacked, providing you use E. W. N. backing, advertised in this magazine.

No.

Of course. Cut one 4 x 5 slip into 4 pieces, expose each a different time on same negative, develop all at once, and you will learn much.—EDITOR.

Please tell me what pyro powders, ready mixed, you prefer; also, what plates you recommend, speed considered.

As per March RECREATION, kindly give me formula for toning Velox to a number of colors.

S. A. Coupal, Lebret, Assa.

ANSWER.

Eastman's pyro powders, in glass tubes and Carbutt's, New York, are among the best plates.

For toning Velox to colors read reply to inquiry of Mr. Wm. T. Perry, in this issue of RECREATION, page 157—EDITOR.

I have some film negatives that I pinned up to dry on a hardwood table leaf, and they took the impression of the grain in the wood to such an extent as to show the grain in the print, thereby spoiling them for good clear photos. What can I do to remove this impression from the negatives?

P. S. Marsten, Medustic, N. B.

ANSWER.

Rub vigorously with alcohol.—EDITOR.

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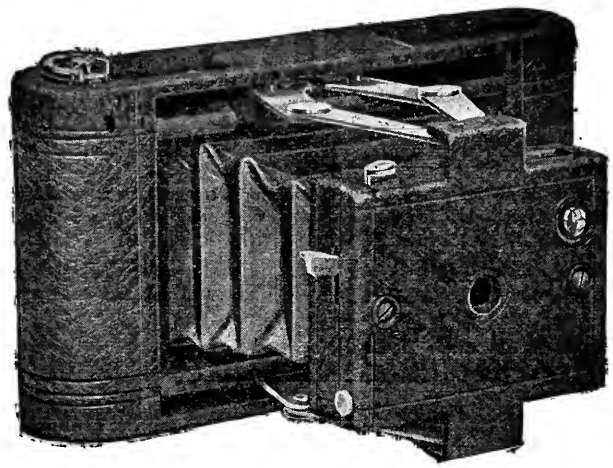

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Mention RECREATION.

There is little attention paid here to the game law. Pot hunters scour the country and shoot everything they can hit in the shape of game and song birds. Then, when snow comes, they take their ferrets and bags and get every rabbit that leaves a track, in order to sell them for 5 cents each. Thus they make good wages for a week or so, and when a sportsman goes out with dog and gun he is lucky if he can start 2 or 3 rabbits. There ought to be a law to prohibit the use of ferrets. I obtained over 100 signatures to a petition for such a law and sent it to our representative. He promised to put it through, but never did anything in the matter. I am going to try it again with our new representative next fall, and I want the help of the L. A. S. I hope to have 500 names on the next petition and shall not rest until I get them. I also hope the L. A. S. will present a bill to prohibit the sale of rabbits for at least 5 years; also to prohibit the sale of fish taken from small inland lakes and streams. When spring opens there will, as usual, be a lot of hogs violating the law, and if I catch one you will hear from me.

Drooks, Hillsdale, Mich.

Should like to hear more through RECREATION about the Sidle rifle telescope.

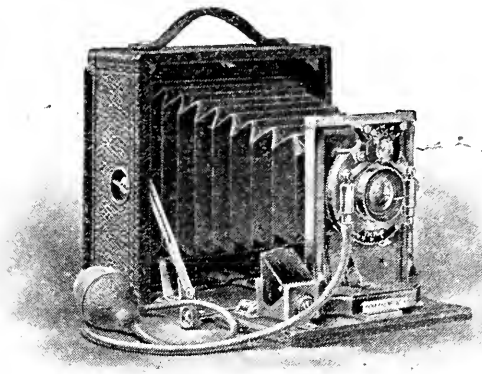
L. Bailey, Lead City, S. D.

Your gun and ammunition department is especially interesting. Please put in more articles about the world-famed 44 calibre. To my mind the 44 as a short range big game gun is without a rival, being short, light, accurate and powerful. As 90 per cent of big game killed is at short range, I do not see the need of the 30. The use of the 30 on game ought to be forbidden by law. Many deer are wounded by it, only to perish beyond reach of the hunter. Possibly there is a legitimate use for the weapon in the Far West, but the only way to save the deer in Minnesota, Wisconsin and Michigan is to bar the long range, game-wounding, 30 caliber rifle.

W. Mashek, Kewaunee, Wis.

White tail deer are still abundant at the head of Flatwillow creek. So, also, are antelope. Between the creek and Lake Mason I saw one bunch of 37 and another of over 60. Indians hunting wolf pups last spring slaughtered many antelope. Farther down, on the Musselshell, antelope are rare, but there are plenty of deer and a few mountain sheep. Sage hens and prairie chickens are more than plentiful. The settlers here, with few exceptions, observe the law. Newcomers on the Musselshell are of a different class. They are butchering game without mercy.

Petaluma, Flatwillow, Mont.



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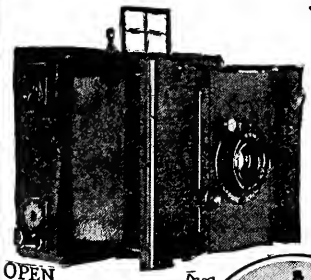

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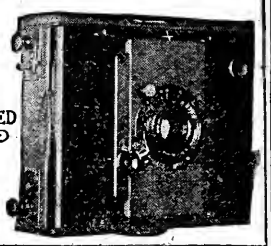

It is all in the Lens

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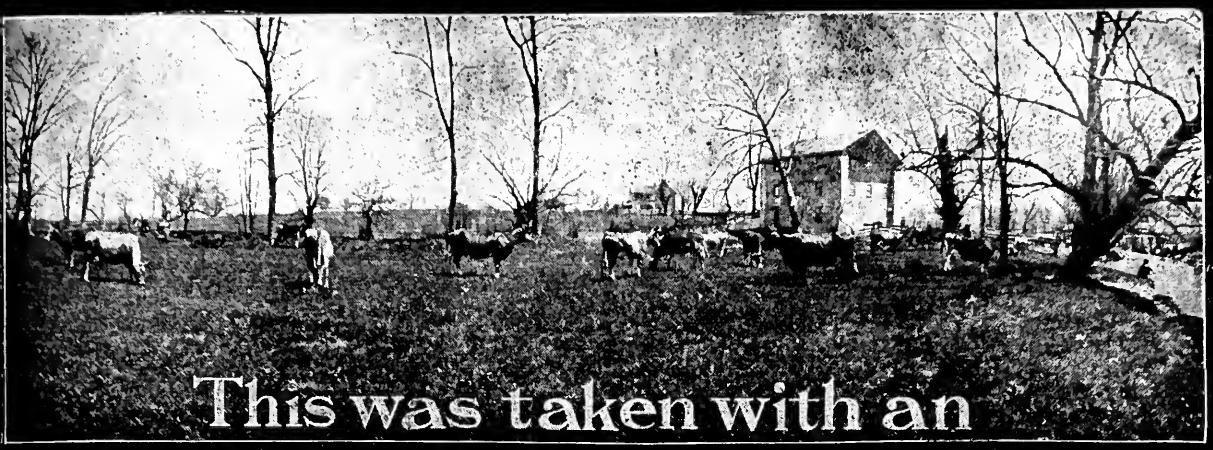
I recently made a test in this city of the new patent lubricated wire patched bullets made by the National Projectile Works, of Grand Rapids, Mich. The device is a great improvement over the dry metal cased bullets now in general use, and I am pleased to recommend the new ammunition to my friends and the trade. It will do all the manufacturers claim for it. There is a constantly increasing demand for a small bore, soft nosed bullet that will not wear or lead the gun, and I believe this bullet will fill every requirement. I found no difficulty in perforating a ¼ inch iron plate with the 30 caliber soft nosed, wire patched bullets, and in many cases could shoot a ½ inch hole through 2 thicknesses of ¼ inch iron, with the 303-180 Savage.

John Popp, Saginaw, Mich.,

RECREATION is all right. Roast the game hogs. They need it. I use a Winchester repeating shotgun and am no game hog either. It is the best trap gun I ever used. I broke 23 out of 25 clay targets the first time I ever shot at the trap. The largest number of quails I ever killed in one day was 9, not because I could not kill more but because I would not.

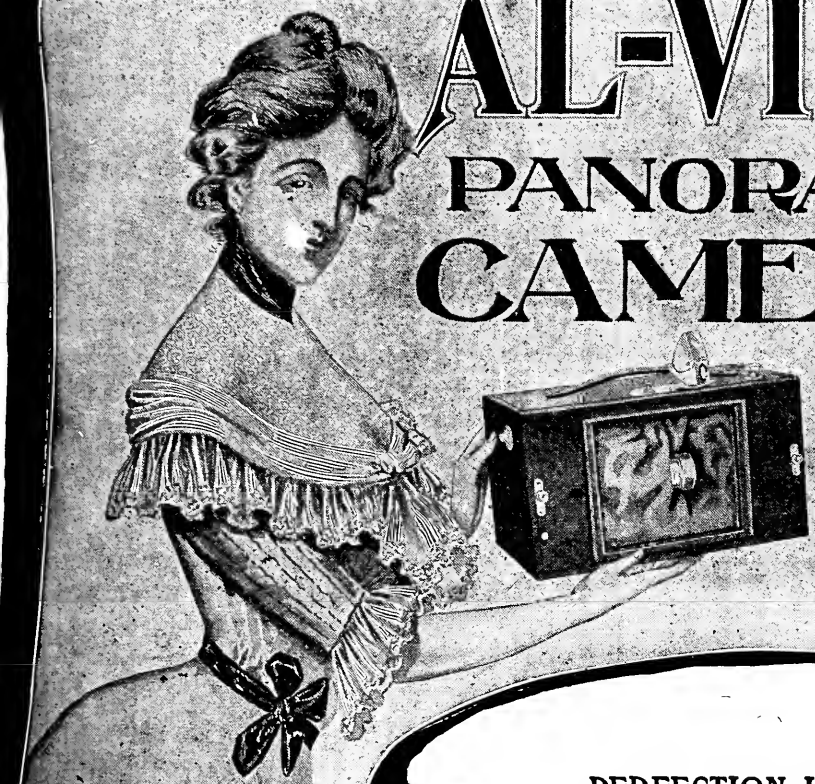
M. C. McGowan, Lawrence, Mich.

IF YOU WOULD LIVE NEXT TO NATURE, READ RECREATION.



This was taken with an

AL-VISTA PANORAMIC CAMERA



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PERFECTION IN PHOTOGRAPHY

Has been secured by the use of the Al-Vista Camera. It produces the entire panoramic view—**from the limit of vision on the left to the extreme point on the right.** The Al-Vista Camera is compact: easy to use, sure in action. It is sold on its merits: we demonstrate this by selling you one ON EASY PAYMENTS. Ask us for a catalog: select the camera you wish, fill up the blank we shall send you, and references being satisfactory we will at once send you a camera—pay weekly or monthly in sums to suit your purse. The camera is no longer a luxury: the demands of modern progress make a good camera a necessity; we make it easy for you to get the best.

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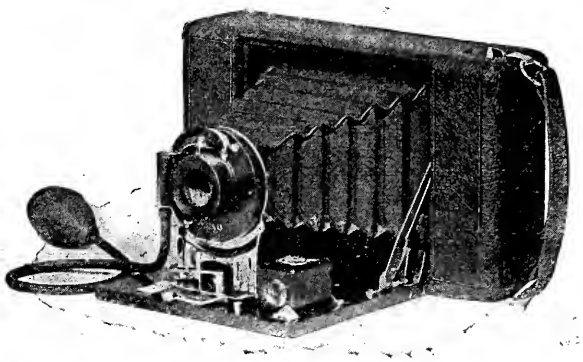
No. 3 FOLDING WENO HAWK-EYE



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Rapid Rectilinear lens, pneumatic release automatic shutter, with iris diaphragm stops, brilliant reversible finder, focusing scale, and tripod sockets for both vertical and horizontal pictures. May be fitted with a glass plate attachment at slight extra cost.

The Perfect Pocket Camera

No. 3 Folding Weno Hawk-Eye, with double R. R. lens, not loaded, $15.00
Do., with single fixed focus achromatic lens, ... 13.50

Hawk-Eye Catalog at your dealers or by mail.

BLAIR CAMERA COMPANY,
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SPECIAL FREE OFFER

To any person sending me $1.00 for one year's subscription to RECREATION I will give free a choice of the following: 50 fine Bristol Cards printed to copy in Gold Ink; or 50 Envelopes printed with return card and a cut representing an angler. With the words "If not caught in 10 Days return to;" or 50 Noteheads neatly printed. Write plainly to avoid mistake in printing. Samples of printing for stamp. Or I will give free a Bottle of Silver Plating Fluid for plating all kinds of metal surfaces; or a Bottle of White Rose Cream for the complexion. Either new or old subscribers may take hold of this offer. Send money by registered letter. Address
HENRY NELSON, ECKVOLL, MINN.

FREE—HOW DOES THIS STRIKE YOU?

To everyone sending me $1 by Draft or P. O. Money Order, for a year's subscription to RECREATION, I will give the choice of one of FOUR Roosevelt hunting books, Sagamore Series, post-paid, each containing frontispiece, 16° cloth, substantial and large print. The books are: "Hunting the Grizzly," "Hunting Trips of a Ranchman," "Wilderness Hunter" and "Hunting Trips on the Prairie." This is a generous offer and will not be open long. By this offer you can enlarge your library of sporting books with practically no expense to you. The books are interesting, instructive, considered by many President Roosevelt's best books.
Address **GEO. J. BICKNELL, Humboldt, Iowa.**

I will pay cash or give liberal exchange for interesting unmounted photographs, any size, either amateur or professional. Wilfred S. Tilton, Prairie Depot, Ohio.

High power, long range rifles are all right in the wilderness, but should not be used in settled country. For deer and black bear the 38-40 and the 40-40 are powerful enough. They can be depended on up to 300 yards. The 38-55 Winchester is a good deer gun. Another excellent big game gun is the Winchester light weight, 45-70-330 express. For small game the 22 long rifle and 25 rim fire are effective.

For a combination target and small game rifle there is nothing better than the Remington 25-21. With that, an Ideal No. 3 special loader. Perfection mould, and Universal powder measure, one can experiment to his heart's content.

For target shooting at 200 yards I recommend 21 grains, bulk, King's semi-smokeless; 86 grain bullet. For birds: 15 grains, bulk, semi-smokeless; 77 grain bullet. For woodchucks, foxes, coons, etc.: 21 grains, bulk, semi-smokeless; 75 grain express bullet.

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50c. PER 1000

With a **WAGER SCALE** you can make **1000** perfect negatives, and you can't do it otherwise. **Post free, 50 cents. Aluminum, $1.00.** Endorsed by the Editor of RECREATION. Your money back if you don't like it. Send a postal for descriptive circular.

WAGER EXPOSURE SCALE CO., Box 539, PHILADELPHIA, PA.

Photographic Talks. No. 2.

Outdoor Work

The increasing need for one dry plate of general utility, such as photographic science has perfected in **R. O. C. The Rochester Dry Plate** is becoming more and more appreciated every day. In this new plate is represented a unity of orthochromatic and non-halation qualities. Possessing, as it does, sufficient speed for every purpose combined with the power to render the sharpest definition, the adaptability of **R. O. C. The Rochester Dry Plate** to every sort of work, is at once understood.

In no branch of photography does the value of the general plate become so apparent as in the study of nature. The varying colors, the swaying foliage, the brilliant lights and heavy shadows all demand a plate of unlimited latitude and efficiency.

For outdoor work the value of **R. O. C. The Rochester Dry Plate** will be at once appreciated by the professional, who understands the value of color; the quality of light and the degrees of speed; by the amateur, who desires a result of uniform excellence, whether the subject is the sunlit bower of roses, or the rock-shadowed glen; finally by every photographer who wishes to profit by the most important advance of the art. Ask your dealer about

ROCHESTER OPTICAL & CAMERA CO., Rochester, N.Y.

Largest Plate Camera makers in the world.

Royal in Name Royal in Quality

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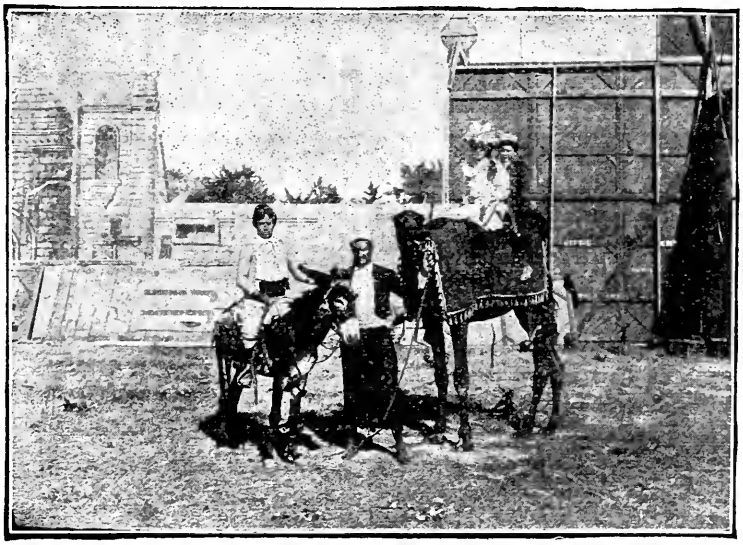
For Landscapes Ocean Views Mountain Scenery Architecture Interiors and Portraits USE A ROYAL



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ROCHESTER LENS CO., Rochester, N. Y., U. S. A.

There are Many **ANASTIGMATS** But Only One

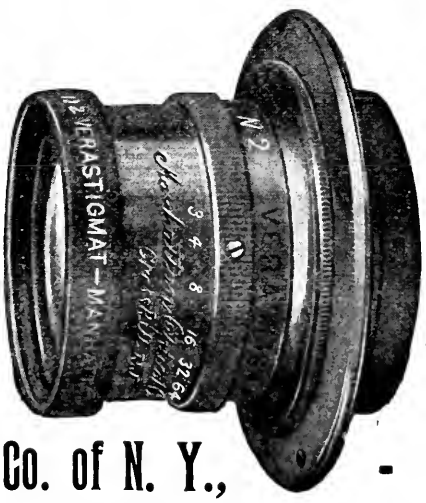
VERASTIGMAT

(True Stigmat.)

A Convertible Lens

Some Anastigmats are better than others but none is better than the VERASTIGMAT

We don't ask you to believe it because we say so, but we would thank you to test the



A Wide Angle Lens

VERASTIGMAT side by side with all others before you buy

Send for our booklet; it is instructive and interesting, and to be had for the asking. Mention RECREATION

Manhattan Optical Co. of N. Y., - - Cresskill, N. J.

PAY YOUR VACATION EXPENSES

$3,000 for Photographs

The past quarter century has seen the greatest advancement in photography; it has also included the development of our photographic lenses and shutters until now their number runs into the millions, used in every land and clime. In order to bring together a representative collection of work from this vast array of photographers we have instituted a competition including every class of photography and from the simplest lens on the cheapest camera to the most expensive anastigmat.

Bausch & Lomb Optical Co.'s LENSES or SHUTTERS

must have been used to make the pictures. That is the only condition. The exhibits will be judged in classes such as Landscape, Portrait, Genre, Instantaneous, Hand Camera large and small, etc., and every one can have an opportunity to compete. It costs nothing to enter: and the most competent and impartial judges will make the awards. If you are buying an outfit see that the lens and shutter are Bausch & Lomb's make.

Special Booklet tells about the Classes and Conditions

Bausch & Lomb Optical Co.

Incorporated 1866

NEW YORK ROCHESTER, N. Y. CHICAGO

A NEW BULLET FASTENER.

I suppose all of us have had more or less trouble in reloading smokeless rifle shells. Being the owner of a Savage rifle, I naturally supplied myself with the necessary reloading tools, resizers, etc., that I might not be cornered in the wilderness by lack of ammunition. However, there was always a large percentage of shells that would not crimp properly, so as to hold the bullet tight. I told the Ideal Co. about it, and they advised me to use their newly devised prick-punch. It seemed this should fill the bill, but it was rather clumsy and heavy. I wanted light weight indentation forceps, which I could use for cartridges of all calibers, without being compelled to use cap extractors, shell holders, etc.

Recently I received a pair of forceps, through the courtesy of an old sportsman, which I deem of sufficient value to describe for the shooting fraternity. These forceps are neat looking, simple and efficient, and they fasten bullets perfectly without marring the shell. They are patented and sold by A. Kind, Hunstig (Rheinl.), Germany. The little instrument can be carried in the vest pocket. One of its jaws has a rounded elongation, which is used for smoothing any indentation before reloading. The tool also does away with resizing the mouth of the shell, to the saving of time and temper. It can be used for all calibers.

Dr. C. E., Crescent, Ia.

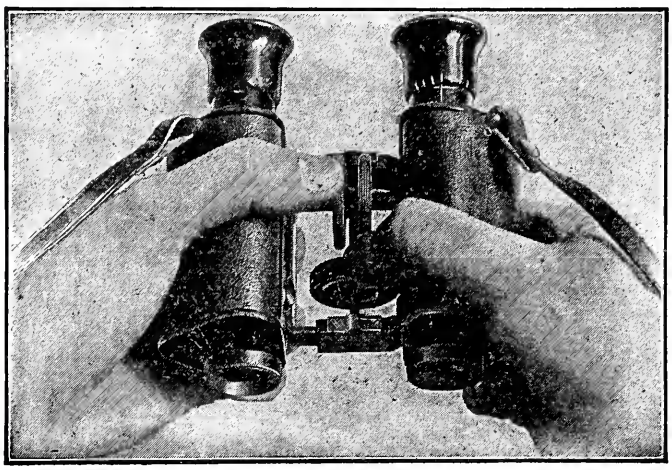
THREE SHOTS AT THE DEVIL.

April 10, 1899, Charles Hank and I were camping on the banks of Silver lake, S. D., determined to bag a few geese and ducks during the Northern flight. We had not the best luck, but got a few geese and our fair share of ducks, besides a few other specimens of water fowl. One day Hank went out in the boat looking for something to shoot at while Charles and I played cards in the tent. We heard Hank's rifle several times. Soon he came running in, wet from head to foot. He explained that while standing in the boat, aiming at a distant duck, the boat drifted against a large block of ice and overturned. When he took off his wet clothes he spread his undershirt out on the tent roof just above the 3-foot wall of the tent. This was done after dark. About 12 o'clock that night the moon came out and shone brightly. Charles awoke and 3 feet above his head was the shape of a human figure, leaning over and looking at us. His wild exclamation awoke us. Each man reached for a loaded shotgun and fired madly at the apparition. As it did not disappear we investigated and found that Hank's undershirt was badly damaged.

C. C. Bierly, Conyngham, Pa.

And lest you forget, in a fit of aberration, I say it again: Please mention RECREATION.

Goerz Trieder Binoculars



An article that appeals to almost every reader of *Recreation*. Take one with you, no matter where you go—on land or sea, in forest or mountains.

Compact. Durable.

Light in weight, finely finished, of unique design with great magnification power, they are unequalled.

Field of View 11 per cent. greater than any other

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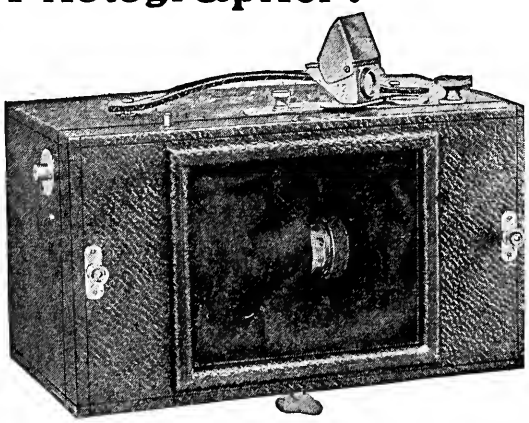
Are You an Amateur Photographer?



If so, would you like a Camera that will photograph

A whole range of mountains
A whole sweep of river
A whole army
A whole fleet of ships
A whole city

Or any other vast stretch of scenery or moving objects? THE SWING LENS DOES IT.

The AL VISTA

Is the thing. It lists at $30.

One of the greatest inventions of the age.
Given as a premium for 20 Subscriptions.

For particulars address

RECREATION, 23 West 24th Street NEW YORK CITY.

To any person sending me a subscription to RECREATION, accompanied by $1, I will send one copy of the "Song of Songs," a drama in 5 acts, based on the Song of Solomon. This is an interesting, instructive and elevating play, written by my late husband, the Rev. Morse Rowell, Jr. The book is bound in paper and is alone worth $1. In addition I have arranged with the editor of RECREATION to send the magazine to all subscribers who may send me their subscription on this plan.

Mrs. Belle J. E. Rowell,
Miller Place, L. I.

The results from my small ad in RECREATION far exceeded my expectations. I have disposed of all the articles therein mentioned, having received inquiries from almost every State in the Union.

RECREATION has a far greater circulation and covers a wider territory than I supposed possible for a sportsmen's periodical. I hope it may attain greater results in the future. If anybody has anything to sell I advise him to advertise it in RECREATION.

H. C. Dieckhoff, Decatur, Ill.

The more I read RECREATION, the moer I wonder what rifle a man should select fo big game. I still have great faith in the old reliable 45-70. Long life and prosperity to RECREATION.

R. E. Peater, Mansfield, O.

MILLEN'S French Satin Jr.

THE STANDARD blue print paper of the world—not the ordinary kind, but a *perfect* paper for photographic work, perfectly made and perfectly packed in sealed tubes. The delight of professional and amateur

Photographers

There is no better, it is the best. A postal card will bring full information of French Satin Jr. and our other photographic specialties.

THE J. C. MILLEN, M. D. Photographic Chemical Co.
DENVER, COLORADO

DOT GLERK'S RACKET.

Youst ledt me toldt you apout ein feller vot shood sometings alretty. Vat his name is I don't toldt you; but he glerks pye dot Racket store in Mechanicsburg. Mebby dot is vere dey soldt dose rackets vor der ping pongs, eh?

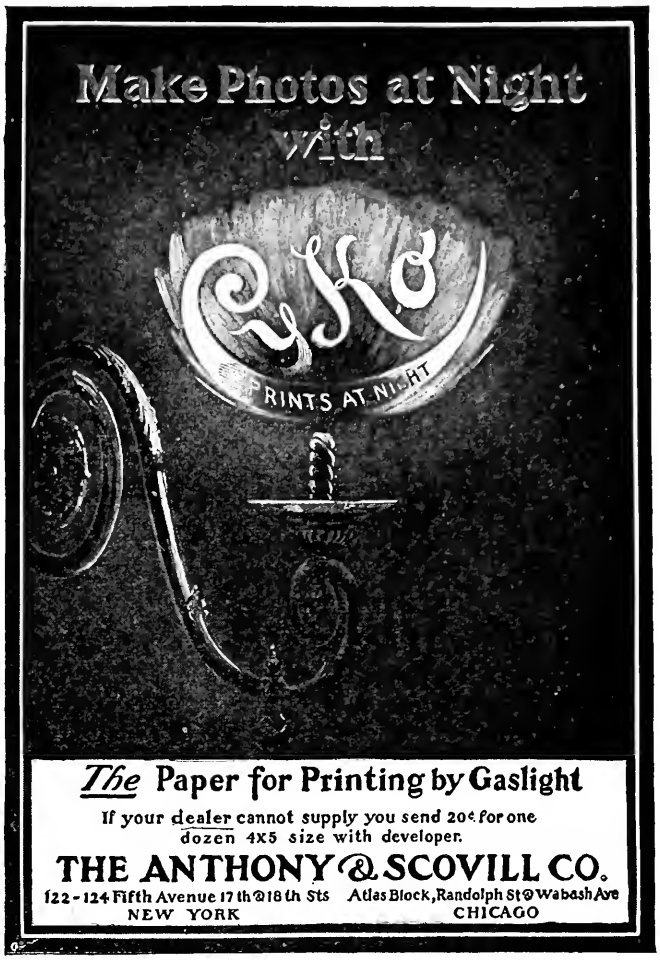
He vas tellin' der poys dot ven he vas shoodin' oudt in der gountry he dake no dog mit him und only 128 shells. Und ven he bye dot vorest arrifed he saw 3 shicken hawks. He shood mit his gun 2 of dose pirds und der oder vly avay. Dot was a smardt pird vat gedt avay from dot man. Ven dot glerk vollow dot pird he shoo up von guail und shoods him. Und he geep on und von at a dime he shoo up 125 guails und shood 124. Dot last pird he nicht could vind. Dot vas goot shoodin', ain't id?

Und dot feller go on und vind von bullsnake und pound him mit a glub to bieces und vind in him von rabbit, von ham pone und 8 bartridge eggs. How could dot glerk dose eggs gount if he pound dem to pieces alretty? Is dot man a kame hog or a liar verdomd?

Dose poys vat inhale dot glerk's hodt air read RECREATION und vould like to see dot man beshamed gedt.

Gotleib Varsaw, Woomleysburg, Pa.

IN ANSWERING ADS PLEASE MENTION RECREATION.



The Paper for Printing by Gaslight

If your dealer cannot supply you send 20¢ for one dozen 4X5 size with developer.

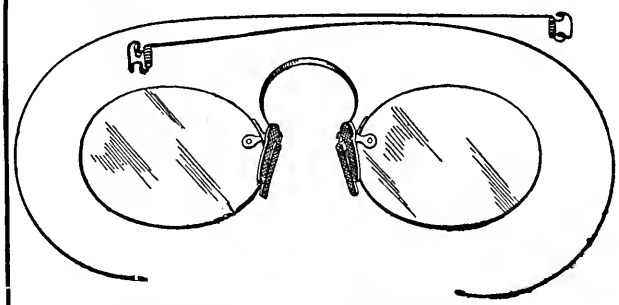
THE ANTHONY & SCOVILL CO.

122-124 Fifth Avenue 17th & 18th Sts NEW YORK — Atlas Block, Randolph St & Wabash Ave CHICAGO

NEW TEMPLE ATTACHMENT

Don't lose your Eyeglasses. Don't drop them, even for a moment. Use the New Temple Attachment.

The change is made, not by an experienced optician, but by anyone wearing eyeglasses, with the aid of Gall & Lembke's New Temple Attachment.



Neat Simple Convenient Handy

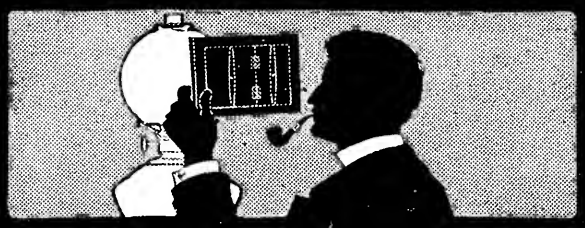
Every wearer of eyeglasses wishes occasionally that his pince-nez were spectacles. They stay on, however violent one's exercise; however warm the weather.

With this **New Device** you carry practically both eyeglasses and spectacles in one ordinary case.

Automobile and horseback riding, hunting, fishing, ping pong, cycling, yachting, golf, tennis, and all other athletic exercises can be indulged in with perfect safety to your glasses.

Price in nickel - - - - - **50 cents**
Price, gold plated - - - - **75 cents**
Send for circular.

GALL & LEMBKE
21 Union Square NEW YORK
Mention RECREATION.



Velox

will give you the most satisfactory results from your vacation negatives.

Softness and richness with pure blacks and mellow high lights are Velox characteristics.

It prints by any light. No dark room required.

NEPERA CHEMICAL CO.

Division of the General Aristo Co.

NEPERA PARK, N. Y.

Velox is sold by all dealers.

HOW THEY LIKE THE PREMIUMS.

The Shakespeare reel you sent me as a premium received its initiation at Long Beach, Cal., March 1901. It was with me at Santa Catalina island; at Wisconsin lakes where bass abound; at numerous trout streams in Wisconsin and Northern Michigan. I can truthfully say it is the most satisfactory reel I ever used.

T. W. Borum, Barron, Wis.

I received the tent you sent me for 5 subscriptions to RECREATION, and wish to thank you for it. How can you give such a valuable premium for so small a number of subscriptions? Do you happen to have a garden patch where tents grow ready for the happy hunting ground?

Claude Stringer, Columbiaville, Mich.

Khotal stove received and gives entire satisfaction. It is the ideal stove for canoeing, camping and house-boating. After using it once you will never again smoke your coffeepot, get ashes in your food or cuss the smudge from a wood fire.

L. Hurdley, Millville, N. J.

Both my premiums have arrived. The revolver is all right. But the prize which I am most pleased with is the 30-30 rifle. Accept my most sincere thanks for rewarding me so liberally for the little work I did for you.

W. H. Tower, Monroe, Mass.

Many thanks for the Davenport gun which arrived safe. I have no doubt it will shoot as well as it looks. The valuable premiums you give are in keeping with the magazine you publish.

G. W. W. Bartlett, Haverhill, Mass.

The Syracuse hammerless sent me as a premium came O. K. Have given it a good trial, and find it perfectly satisfactory. Please accept my sincere thanks for your prompt way of doing business.

John Uhl, Johnstown, Pa.

I received the 3 Laughlin fountain pens and they are fine. Please accept my thanks. I have given them a thorough test and they work to perfection.

A. G. Kellenberger, Tacoma, Wash.

I received the Ingersoll watch you sent me as a premium and found it much better than I expected. I thank you for your kindness.

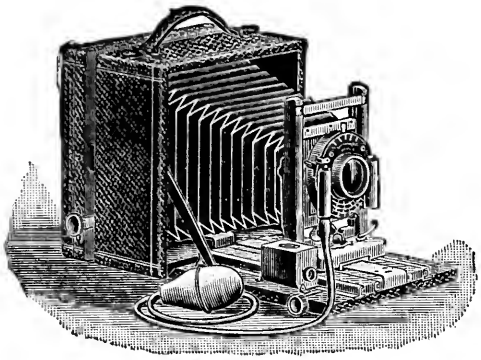
R. L. Distler, Elmwood Pl., O.

The Winchester rifle you sent me as premium for subscribers to RECREATION is a beauty. Many thanks to you for it.

Geo. B. Mitchell, Gays Mills, Wis.

IT'S ALL IN THE LENS

Series V Long Focus Korona



Can be used with equal facility for everyday, hand-camera

Snap Shots
Photographing Distant Views
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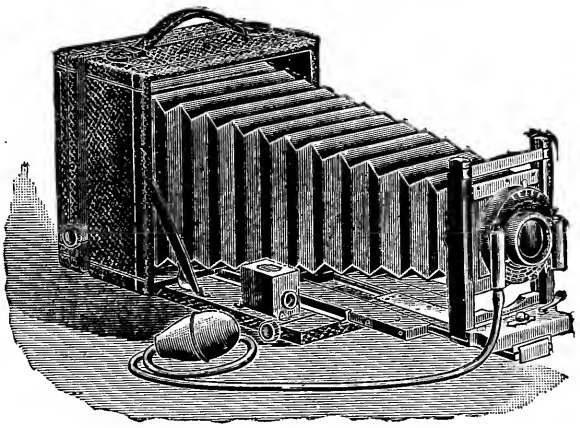
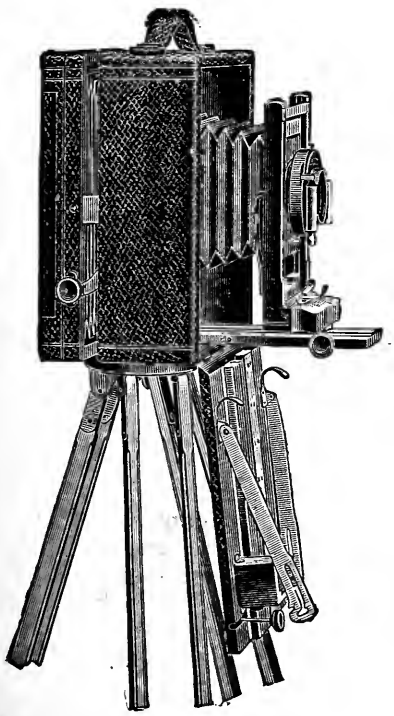
or other work needing bellows capacity, and also with wide-angle lenses for interiors and kindred subjects.

ONE CAMERA DOES IT ALL

Every adjustment is a marvel of simplicity and mechanical ingenuity, and many of them are found exclusively on the Korona.

Note our patent auxiliary bed for use with wide-angle lenses, and compare it with





the clumsy methods used to obtain this result on other cameras.

Our patent automatic swing back operates from the center according to correct principles.

KORONA LONG FOCUS

Has a Convertible Lens, Automatic Shutter, and numerous other special advantages.

Catalogue gives full information

Gundlach Optical Co.

ROCHESTER, N. Y.

Mention Recreation

THE WISDOM OF SIEUR LEMERY.

From a book printed in 1711.

To catch partridges steep wheat in *Aqua Vitae,* place it where the partridges repair, and they will fall down drunk.

To make rabbits come out of their Berries without a ferrit:

Take powder of orpiment, sulphur and an old shoe, or parchment, or cloth, which burn at the mouth of the berry, upon which the wind blows, and spread your bags under the wind.

Another way:

Put one or 2 cray fishes into the mouth of the berry, and they will certainly make the conies come out.

To gather together a great number of hares:

Take juice of henbane mixed with the blood of a young hare, and sew it in a hare's skin, which bury in the earth.

An admirable way to prevent arms from rusting, and to take off the rust:

Take a pound and a half of beef suet, a pound and a half of oil of sweet almonds, extracted without fire, one pound of fresh olive oil, 4 ounces of camphor, 12 ounces of lead, burnt with sulphur, make a composition of them, and boil it to the substance of an ointment, with which rub the arms to prevent rusting.

A Pleasant way to catch crows:

You must mince some ox liver or lights with some Nux Vomica, which make up into little balls as big as small nuts and spread them in any field; as soon as the crows eat them they fall down and you may easily catch them with your hands.

To catch fish:

Put oil of camomile into a vial, and when you would fish you must have some worms, and kill them in the said vial of oil, and bait your hooks with those worms.

A wonderful secret to bring the fish to the places you desire:

Boil barley in water till it bursts, and boil it with licorice, a little mummy and honey, beat all together in a mortar till it is stiff as a paste, which put into boxes close stopped; when you would fish in any place take about the quantity of a walnut of it, and boil it in any earthen pot, with 2 handfuls of fresh barley, with a little licorice, leaving it till it is almost dry; then throw it into the place whither you would have the fish come, and they will gather there.

The above valuable information is found in a volume entitled; "New Curiosities in Art and Nature; or a Collection of the Most Valuable Secrets in all Arts and Sciences." The faded brown fly leaf of this book states that the contents are "Copied and Experimented by the Sieur Lemery, Apothecary to the French King." It was printed in the year 1711 and in his preface the English translator says: "It will be far from being a Burthen to the Reader to let him at once into the following secrets, many of which, I can assure him, if he maken a Right Choice of, have been lock'd up in the Closets of the Best Families of Europe, as Rarities too valuable to be exposed to the Publick."

Le Roy Thomas, Washington, D. C.

A TWO-SIDED STORY.

Four of us were sitting around a fireplace watching the embers and swapping yarns when Browne joined the group.

"Hello, boys.!"

"Hello, Browne!"

"Say, fellows, I have just returned from the greatest trip on record."

"Tell us about it."

"Well, Maitland and I went, as we told you, up in the Maine woods, and although we were disappointed in not getting any big game, we were more than repaid for our trouble.

"There was an old farmer whom we secured as guide and he certainly knew the country. I never saw grouse so thick. I wish we could have stayed a month, but 3 days was the limit. You ought to hear Maitland talk. Where is he? Oh, he had to go West on business just after we got back. But we certainly had great sport. He and I shot all the game. Jake, the guide, didn't own a gun, I guess. What did we get? Between us our bag amounted to 18 grouse, 22 quail and 17 gray squirrels. We could have shot 4 times as many, but we didn't want to act like hogs."

"Did I ever tell you chaps about them 2 city dudes thet come up here and wanted me to guide 'em raound?" said Jake to the loungers in the country store. "They were the all firedest rottenest shots I most ever see. They hed all the fancy, newfangled idees in shootin' traps thet you ever thought of an' a durned sight more.

"One of 'em, Maitland, did happen to hit a squirrel, but thet Browne, say, he had the purtiest gun you ever see, but, by grabs, he couldn't hev hit a flock of barns. I was a sellin' 'em pat'iges an' quails at $2.50 a dozen and gray squir'ls at 25 cents apiece, an', by gosh, they bought every last one, too."

S. L. J., New York City.

We have many rabbits here, a few quails, some grouse, green wing teal, minks, woodchucks, squirrels, etc. I should like to hear about hunting quails. I like the way you roast the game hogs.

Arnold N. Holmes, Greenland, N. H.

Quails are abundant here and we have some ruffed grouse and prairie chickens. Grey and fox squirrels are numerous, with an occasional black. We have also wolves and red foxes.

Z. A. Rickman, Knoxville, Ia.

The Ideal Picnic.

To thoroughly enjoy the day's outing, the luncheon should consist of substantial food, ready prepared, easy to carry, delicious to taste and easily digested, so as not to spoil the day's fun.

The ideal food for picnickers is Grape-Nuts, which is thoroughly cooked at the factory and is always ready to serve with the addition of cream.

A package of Grape-Nuts, a bottle of cream, some fruit, and you have a luncheon for home or abroad that is inexpensive, pleasing to the palate, and best of all, nourishing without causing internal heat or the draggy feeling caused by heavy food.

Grape-Nuts is the perfect food for hot weather, for in its predigested form it makes digestion easy, its crisp daintiness is charming to all and the escape from the hot stove appeals to the housewife.

For camping, Grape-Nuts proves a most convenient food and a goodly supply should always be taken; it is used by some epicures in frying fish, for it adds a delightful flavor and is naturally superior to the ordinary crumbed crackers or corn meal for this purpose.

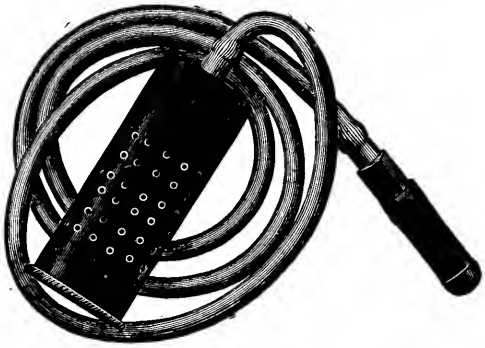
Many easy, hot weather recipes are found in each package for luncheon and supper desserts.

HAYDEN'S IMPROVED

POCKET WATER FILTER

A necessity for

Sportsmen, Hunters, Wheelmen and Tourists!



Filter and Mouth Piece made of fine, hard rubber.
Two feet of rubber tube.
Can be carried in the pocket or tool bag.
Very light and neatly made.
Will last many years.
Filters through charcoal.

After repeated experiments the little filter is as nearly perfect as it can be made. The barrel, or filter, is a trifle smaller than heretofore, and the water filters through charcoal. This is a decided improvement and absolutely filters.

Price, 75 cents, postpaid.

CHAS. A. HAYDEN,
OXFORD, OHIO.

Health and Strength
Can be obtained by using a "Professional New" Punching Bag

Can be attached to a door, wall or window casing.
Noiseless and Rapid
Space 6×8 inches
Weight 7½ lbs
Punching Bag Gloves $1.25

Price
delivered complete $6.95
Childrens Size
delivered complete $4.50

MORNING EXERCISE

H. D. Crippen
52 Broadway, New York. DEPT No 133 WRITE FOR BOOKLET

Bronze Medal, Paris Exposition, 1900

Collan Waterproof Shoe Dressing

Hunting Boots made permanently watertight, soft and flexible, never water-soaked, hard and shrunken.

Dry feet for Sportsmen, Golf Players, Mountain Climbers, Explorers and others obliged to traverse wet and snowy fields or stand about in water.

Great for all winter footwear and school shoes. Prevents cracking—shoes outwear others 3 or 4 times.

A boon to ladies wearing *thin-soled shoes.*

Fine for Saddles, Bridles, all Harness. An unequalled Gun Oil, prevents rust, cleans, wipes close.

Sold in tins, BLACK 25c and 45c; YELLOW (for fair leather), 30c and 55c, f. o. b. N. Y. Gross lots and bulk prices special. Sold by dealers generally. Write us direct if your dealer doesn't keep it.

J. R. Buckelew, Sole Agt.
111 Chambers St., N. Y.
Mention RECREATION.

How is your Muscle?

Would you like to build it up?

How are your Lungs?

Would you like to expand them?

How is your Circulation?

Would you like to improve that?

If so, send me 10 yearly subscriptions to RECREATION, accompanied by a money order for $10, and I will send you a new

Professional Punching Bag

made by H. D. CRIPPEN, No. 52 BROADWAY, NEW YORK, and listed at $6.95.

There is a frame with the bag that you can attach to a door casing, a window casing or a wall, or a board fence, or anywhere else you may see fit to put it, and you will thus have a small gymnasium of your own. The Crippen bag is one of the liveliest ever devised, and if you [illegible] minutes a day on it, for a month, [illegible] powerful improvement in your [illegible]lth.

Sample copies of RECREATION, for use in canvassing, will be mailed free.

How a Jas. Boss Watch Case Is Made

Gold Outside
Stiffening Metal
Gold Inside

The Jas. Boss Stiffened **Gold** Watch Case is made of two layers of Solid Gold with a layer of Stiffening Metal between welded and rolled together into one solid sheet of metal. The Jas. Boss Case is a Solid Gold Case for all practical purposes. The Stiffening metal simply adds strength and durability. The Boss Case is guaranteed for 25 years by the largest watch case makers in the world, who have been making it for a full half century. Every Boss Case has the Keystone trade-mark stamped inside. Ask any dealer to show you one. Write us for a booklet telling the whole story.

The Keystone Watch Case Company, Philadelphia.

By this mark you know them

Should like to hear from someone who has used the 170 grain bullet, No. 308,206 in Ideal Hand Book, in a .303 Savage. I find U. M. C. .303 Savage miniatures fit the chamber so loosely as to allow gas, particles of powder and even bits of brass from the shells to blow back into the eyes. I cannot understand why the 180 grain Savage bullet has a lower trajectory at 100 yards than the 30-40 Winchester, while at 200 yards its trajectory is higher than that of the 30 W. C. F. A penetration of 50 boards is claimed for the .303 Savage while the Winchester catalogue allows it only 33. Should like to hear from users of the Remington-Lee 30-40.

R. C. Barton, Papillion, Neb.

For general shooting would you recommend a cylinder or a full choke bore? What is a good load in a 16 gauge for rabbits, and what for ducks? Are brass shells suitable for shot guns? How can I resight a 45 caliber rifle?

Eugene B. Strong, Brooklyn, N. Y.

Can a shot gun or a rifle barrel be rebored without changing the gauge or caliber? Harold Sheldon, Fair Haven, Vt.

ANSWER.

Generally speaking, a shot gun or a rifle can not be rebored without changing the gauge or caliber. A gunmaker or gunsmith can run a boring or rifling instrument through your gun a few times to remove the lead or rough spots, but it would not be well to continue the process enough to cut away any perceptible amount of metal. If this were done it would change the gauge or caliber.—EDITOR.

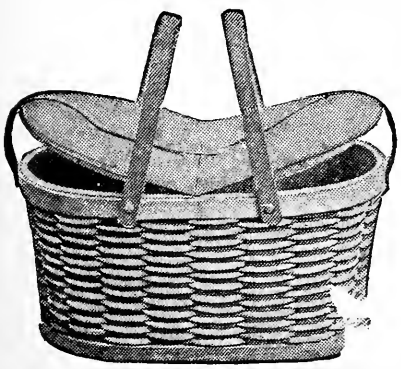
Will some reader of RECREATION who has used a 16-gauge shot gun for water fowl shooting tell me if the weapon is suitable for such work. Also what length of barrel is best. Have always used a 12-gauge gun, but think a 16 is large enough for a sportsman who is satisfied with a moderate bag.

U. L. A., Provo, Utah.

The Hawkeye REFRIGERATOR BASKET

IDEAL FOR ALL OUTINGS

Lined with zinc, hair, felt and asbestos. Air-tight and dust-proof. A small quantity of ice keeps contents deliciously cool and sweet throughout the warmest Summer day. Light, compact and durable. Your money back if not pleased after ten days' trial.



No. 1, size 18x10x8 inches deep, . . price, $3.25

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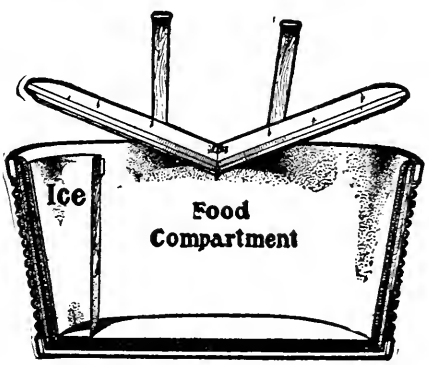
Ask your dealer for it, or send P. O. subject to inspection to-day for booklet giving full description.



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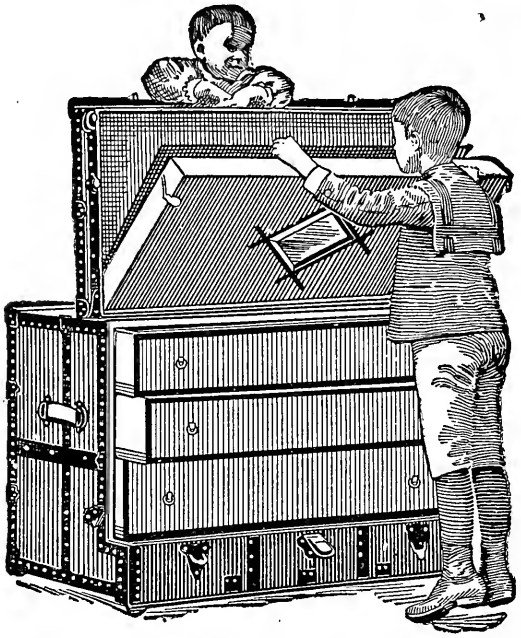

Stallman's Dresser Trunk

Have you seen one? It is up-to-date. Think of it, everything within reach. No heavy trays, but light, smooth drawers. Holds as much and costs no more than a good box trunk. Hand riveted, almost indestructible. Once tried, always recommended. Sent C. O. D., privilege examination. 2c. stamp for catalogue. Mention RECREATION.

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We will give the first person answering this advertisement from each town in the United States an unusual opportunity to obtain

The American $10 Typewriter
OR
The American $40 Typewriter

For full particulars, address promptly

THE AMERICAN TYPEWRITER CO., 260 Broadway, New York City.

IN ANSWERING ADS PLEASE MENTION RECREATION.

THE ADIRONDACK MOUNTAINS

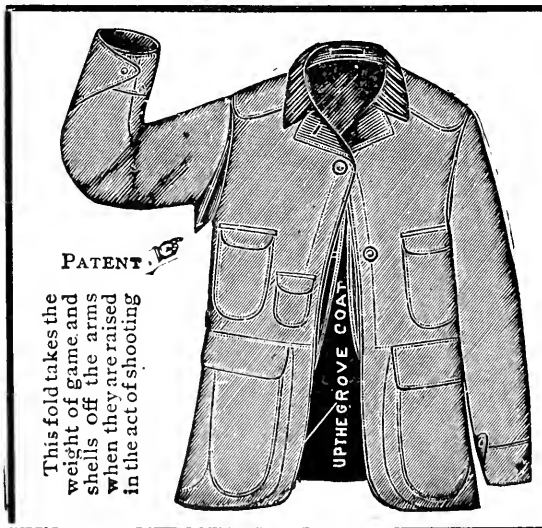
The lakes and streams in the Adirondack Mountains are full of fish; the woods are inviting, the air is filled with health, and the nights are cool and restful. If you visit this region once you will go there again. An answer to almost any question in regard to the Adirondacks will be found in No. 20 of the "Four-Track Series," "The Adirondacks and How to Reach Them;" sent free on receipt of a 2-cent stamp, by George H. Daniels, General Passenger Agent, New York Central & Hudson River Railroad, Grand Central Station, New York.

I am just in receipt of the Marble hunting knife as premium for getting subscribers for RECREATION. Can truly say it is the finest hunting knife I ever saw.

I shall continue to get subscribers for RECREATION as opportunity permits. It is a little late to do much now, but shall do my best at all times.

D. T. Santo, Mayville, Ore.

Free: I will print 50 visiting cards for any one who will send me a subscription to RECREATION, accompanied by $1. Send stamp for sample card. D. J. Finn, West 184th St. & Broadway, New York


PATENT
This fold takes the weight of game and shells off the arms when they are raised in the act of shooting
UPTHEGROVE COAT

This Patent

recommends itself and reminds you that on receipt of your name and address we will mail you our

Illustrated Catalogue

containing samples of

Corduroy, Canvas, Mackintosh, Flannels, etc.,

also cuts, descriptions and blanks for measurement. Address

H. J. Upthegrove & Son,
No. 2 Wood St., VALPARAISO, IND.

POSTED PASTURES.

I read with much interest the letter of Mr. De Loach in November RECREATION. Although agreeing heartily with most of his views, I think he fails to realize how necessary it is for the preservation of game in Texas that the hands of the pasture owners should be strengthened. If they could not post their pastures they would be overrun with swarms of pot hunters, both from town and country, and what game is left now would soon be exterminated. The preservation of the 2 or 3 small bands of antelope within 100 miles of here, which are all that remain of the thousands that used to cover this country, is entirely due to the action of the men in whose pastures they run.

The same is true, to a great extent, of deer, turkeys, quails, and all kinds of fish. Also, many hunting and fishing parties are careless about shutting gates, and properly extinguishing camp fires, before leaving; and I have heard of cases where valuable stock has been injured by reckless shooting. I fail to see how any law can be considered "one sided and class legislation," which only gives a man the right to keep intruders off his own property.

No doubt Mr. De Loach feels sore at seeing strangers to the country slaughter game, while he is not allowed a shot at a deer, and I can sympathize with him; but if these pastures were thrown open to all comers how long would there be any deer left?

As a rule, I believe the pasture owners are good sportsmen, are moderate in what they and their friends kill and are willing to give reasonable permission to local sportsmen, if they believe it will not be abused. Of course there are some who take no interest in game preservation; but nearly all who shoot or fish are anxious, if only from selfish motives, that sufficient breeding stock should be left.

The laws we have now have been of great assistance in preserving the game, and are, I think, fairly well observed. A law entirely prohibiting the sale of game would be better, as it is not easy to prove that game was not shot in the county where it is offered for sale. Moreover, the wholesale shooting of wild fowl on the coast should be immediately stopped.

L. A. S., No. 3875, Tecumseh, Texas.

Wanted—To communicate with a few gentlemen who would like to join a country club, owning 1,000 acres of mountain forest, within 100 miles of New York; altitude 1,400 feet; beautiful lake, covering 100 acres, well stocked with black bass; fine chance for game preserve; each member gets building lot fronting on lake; first class references given and required. Address S. G., care RECREATION.

Not what is said of it, but what it does, has made the fame of the

Elgin Watch

and made 10,000,000 Elgins necessary to the world's work. Sold by every jeweler in the land; guaranteed by the greatest watch works. Illustrated art booklet free.

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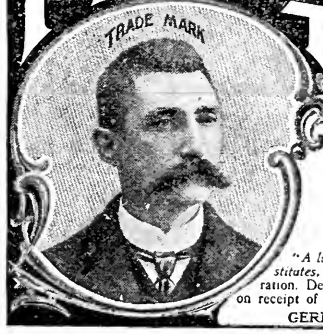

A Positive Relief For PRICKLY HEAT, CHAFING, and SUNBURN, AND ALL AFFLICTIONS OF THE SKIN.

"A little higher in price, perhaps, than worthless substitutes, but a reason for it." Removes all odor of perspiration. Delightful after Shaving. Sold everywhere, or mailed on receipt of 25c. Get Mennen's (the original). *Sample Free.*

GERHARD MENNEN CO., Newark, N. J.

SOME RARE OPPORTUNITIES

These goods are all new, and will be shipped direct from factory. Prices named are those at which manufacturers and dealers usually sell. Here is a good chance to get

A Book, a Gun, a Camera
A Sleeping Bag, a Fishing Rod
A Reel, a Tent,
} FREE OF COST

Subscriptions need not all be sent at once. They may be sent in installments as taken and credit will be given on account. When the required number is obtained the premium earned will be shipped.

These Offers are subject to change without notice.

TO ANY PERSON SENDING ME

TWO yearly subscriptions to RECREATION at $1 each, I will send a copy of *Hunting in the Great West*, cloth; or a Zar Camera, listed at $1; or an Ingersoll Watch or Cyclometer, listed at $1; or a Recreation Waterproof Match Box, made by W. L. Marble and listed at $1; or a Shakespeare Revolution Bait listed at 75 cents; or a Laughlin Fountain Pen; or a Cartridge Belt listed at $2; or a dozen Trout Flies, assorted, listed at $1; or a Stonebridge Folding Aluminum Lantern, listing at $1.50.

THREE subscriptions at $1 each, a copy of *The Battle of the Big Hole*, cloth; or a safety pocket ax, made by W. L. Marble and listed at $2.50; or a dozen Bass Flies, assorted, listed at $2; or 4 dozen Carbutt plates, 4x5 or 5x7.

FOUR subscriptions at $1 each, a copy of *Camping and Camp Outfits*, cloth; or a Khotal Oil Stove, made by the Hydro-Carbon Burner Co., listed at $4; or an Ideal Hunting Knife, made by W. L. Marble and listed at $2.50; or a .32 caliber Automatic Forehand Revolver, made by the Hopkins & Allen Arms Co.

FIVE subscriptions at $1 each, a copy of *Cruisings in the Cascades*, cloth; or a set of Nehring's Convertible Ampliscopes, listed at $5.00; or an Ideal Hunting Knife made by W. L. Marble, and listed at $3; or a polished Buffalo Horn Gun Rack, made by E.W. Stiles.

SIX subscriptions at $1 each, a Hawkeye Refrigerating Basket made by the Burlington Basket Co., or one dozen Eureka golf balls listed at $4.

SEVEN subscriptions at $1 each, a copy of *The Big Game of North America*, or of *The American Book of the Dog*, cloth, or one set Lakewood golf clubs, 5 in number, listing at $5.

EIGHT subscriptions at $1 each, a 4x5 Weno Hawk-Eye Camera, made by the Blair Camera Co., and listed at $8.

NINE subscriptions at $1 each, an Acme single shot gun, made by the Davenport Arms Co., and listed at $8.

TEN subscriptions at $1 each, a Cut-Glass Salad Bowl, made by Higgins & Seiter, and listed at $4.50; or a Conley Combination Hunting Coat, listed at $8; or a Yawman & Erbe Automatic Reel, listed at $6 to $9; or a Bristol Steel Fishing Rod, listed at $6, or less; or a Single Barrel Shot Gun made by Harrington & Richardson Arms Co.; or a Waterproof Wall Tent 7 x 7, made by D. T. Abercrombie & Co., and listed at $8; or a canvas hunting coat, made by H. J. Upthegrove & Son, listed at $8.

TWELVE subscriptions at $1 each, a Peabody Carbine valued at $12; or a No. 5 Sidle Telescope Rifle Sight, listed at $18; or a Davenport Ejector Gun, listed at $10.

FIFTEEN subscriptions at $1 each, a Shakespeare Reel, Silver Plated, listed at $15; or a set of rabbit plates made by Higgins & Seiter, and listed at $8, or a pair of horsehide Hunting shoes, made by T. H. Guthrie, Newark, N. J., and listed at $8, or a Field Glass made by Gall & Lembke.

TWENTY subscriptions at $1 each, a 14-karat Gold Hunting-case Watch, with Waltham Movement, listed at $20; or a Repeating Rifle, listed at $16 or less; or an Elita single shot gun, made by the Davenport Arms Co., and listed at $18, or a pair of horsehide Hunting Boots, made by T. H. Guthrie, Newark, N. J., and listed at $10.

TWENTY-FIVE subscriptions at $1 each, a Shattuck double hammerless gun, listed at $25; or a 11-foot King Folding Canvas Boat, listed at $38; or a Repeating Rifle, listed at $20 or less; or a 4x5 Planatic lens, made by the Rochester Lens Co., and listed at $25.

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FIFTY subscriptions at $1 each, a No. 20 Gun Cabinet, made by the West End Furniture Co., and listed at $38.

ONE HUNDRED subscriptions at $1 each, a high grade Wilkesbarre Shot Gun, with Damascus barrels, listed at $125.

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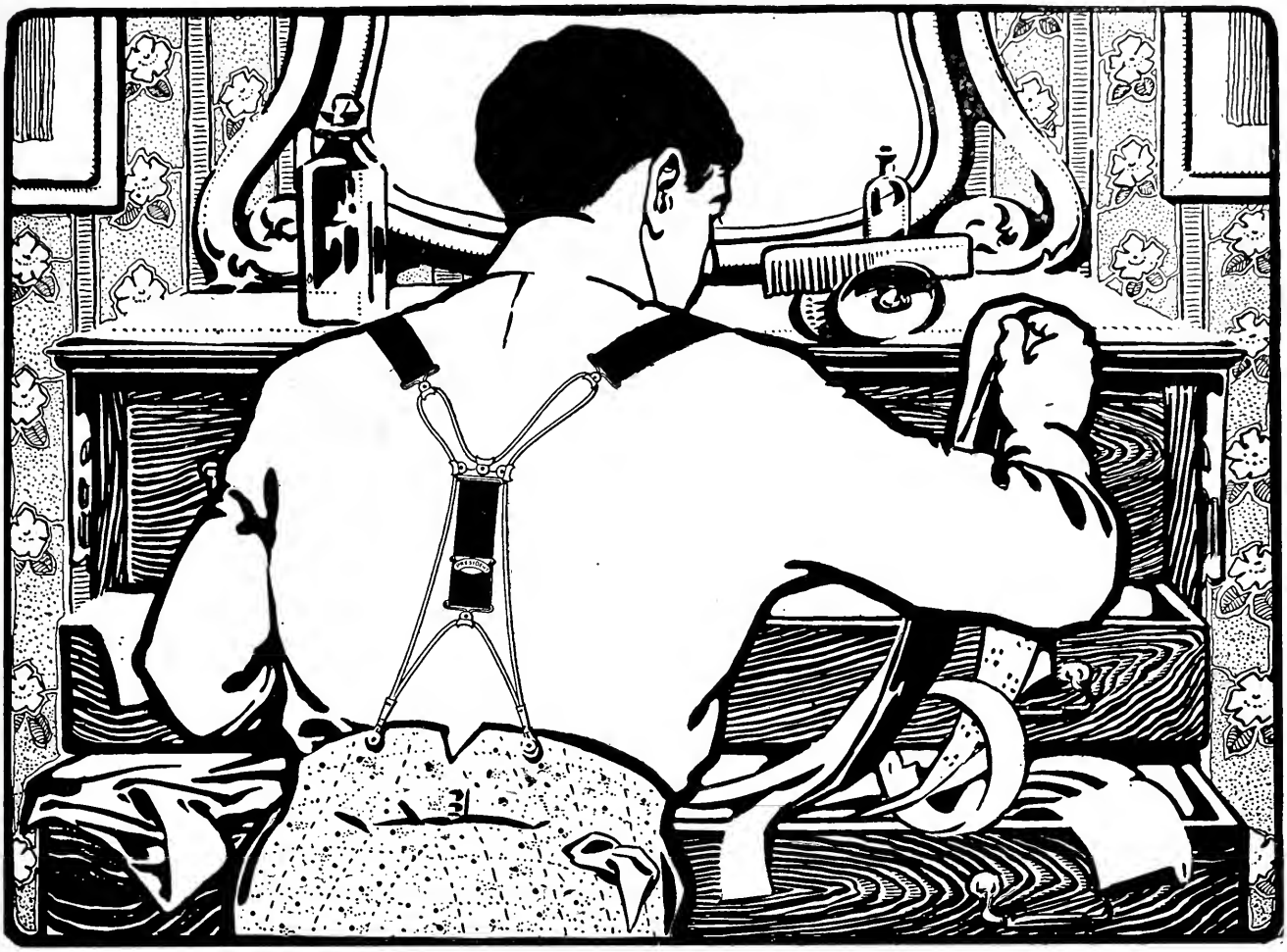

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(—and he had them on all the time)

You don't feel the "President." That's the secret of its popularity—the unconscious comfort of it. Gives such freedom and ease—conforms so readily to every bend of the body.

PRESIDENT SUSPENDERS

guaranteed if *"President"* is on buckles. **Trimmings cannot rust.** Made heavy or light—also for youths. Everywhere 50c or by mail postpaid. Say light or dark—wide or narrow.

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SURE SHOT

The puppy is liable to destruction from worms. 'Tis the critical period in a dog's life. Canine worms meet "sure" destruction when

SURE SHOT

is administered. After that, it builds up the growing dogs constitution, develops bone and muscle. It makes thin, puny and weak puppies plump, animated and strong. ***50c. by mail, prepaid.***

Sergeant's Condition Pills

are the best liked and easiest to give of all alteratives and tonics. Incidentally any disease that a dog is likely to have will be speedily relieved and ultimately cured. Of dealers, 50c. and $1. By mail, prepaid.

Sergeant's Carbolic Soft Soap

is the "best ever" and for sale everywhere. 25c. of dealers. By mail 35c.

An order, or 3c. in stamps will entitle you to our latest Dog Book and Pedigree blank, mailed free.

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POLK MILLER DRUG COMPANY RICHMOND, VA.

"Nothing so Rare as Resting on Air."

No Other Bed,

anywhere, at any price, can compare with the

DEFLATED AND ROLLED UP.

A mattress 75x21 in. makes a bundle 7x14 in. and weighs 9 lbs.

Pneumatic Mattress

Most comfortable a man ever slept on. Lightest in existence. Strong, durable, guaranteed. At a fair price of all sporting goods dealers.

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Pneumatic Mattress and Cushion Co.

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If so, would you not like a rack for it?

Do you keep more than one gun?

If so, would you not like racks for all of them?

For 5 yearly subscriptions to RECREATION

I will send you

a pair of buffalo horns

beautifully polished and mounted on nickel bases, which may be screwed on the wall.

A pair of these horns make a unique and convenient gun rack, and a valuable trophy of the grandest game animal America ever had.

These horns are easily worth

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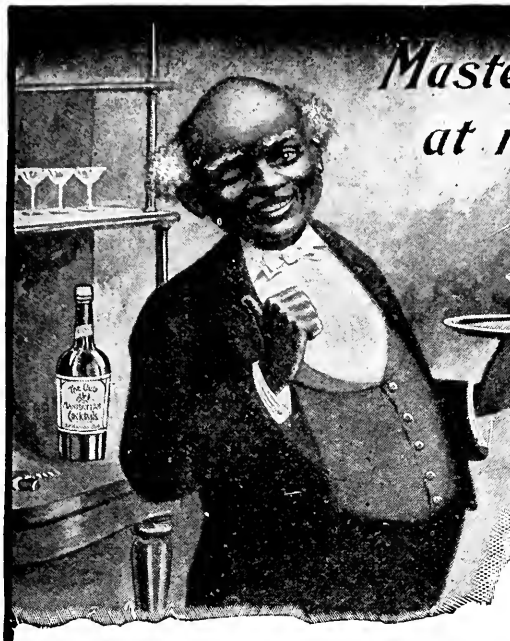
a pair and sell readily at that price. I have been fortunate in securing a considerable number of them at a price that enables me to make this remarkable offer.

Send in your Club at once.



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YOU can do it just as well

Pour over lumps of ice, strain and serve

SEVEN KINDS *BEWARE OF IMITATIONS*

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COMPACT! POWERFUL!
COOKS ANYWHERE.

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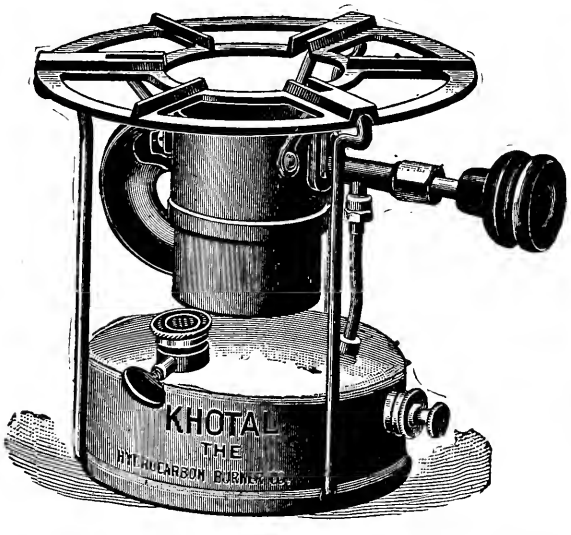

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Have a billiard room in your summer cottage. You need never then experience any difficulty entertaining your friends. Formerly billiards at home was a luxury beyond the means of most people. With our

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Library ⌄ Dining ⌄ Billiards ⌄ Pool

everybody can have a billiard room in his summer cottage. It is a massive, beautifully made table, with dining or library top, which, removed, discloses a practical, well constructed billiard and pool table. The playing surface is as good in every way as that of the best standard size tables. Accurate angles, true balls, regulation cues, quick sensitive cushions and beds of superior Vermont slate. It thoroughly serves the purpose of four tables in the best possible manner. Sizes ⅔, ¾, ⅞ standard. Write us for illustrated catalogue of our many styles and designs, with full information, cash prices and our special payment plan.

COMBINATION BILLIARD TABLE CO.
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FUR RUGS

A large line of Western Game Heads and Birds For Sale at Unheard-of Prices.

Any kind or style Rug made to order at same rates.

Well-made Western Bird Skins For Sale.

I have purchased a large number of all kinds of western skins, including bear, lion, lynx, cat, wolf, etc., direct from the trappers, and can give you better prices on this line than any other dealer in the U. S.

Enclose stamps for photos and price list.

A. E. HAMMOND
Taxidermist
DARBY MONT.

In the splendidly equipped RABBITRY of Drs. H. R. PHILLIPS & WREAN, Penn Yan, N. Y., are some of the finest

IMPORTED BUCKS,

Lord Roberts, Prince of Leeds, Jr., Fashoda, Jr., and a fine line of BREEDING DOES at reasonable figures and warranted to be correct, young,

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$6. for a TRIO during JULY and AUGUST. but no later.
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FLYING SQUIRRELS. For a short time only I will give a pair of these handsome little pets for 2 yearly subscriptions to RECREATION. For 3 subscriptions I will give a Fox Squirrel, or for 6 subscriptions a pair of Fox Squirrels. For 5 subscriptions I will give a Raccoon. Will collect almost anything in the natural history line indigenous to this locality in exchange for yearly subscriptions to RECREATION.

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S. C. White Leghorns — Large, White, Hardy. Good Layers. Mammoth Pekin Ducks, Prize-Winning Barred Rocks, Buff Wyandottes. Belgian Hares equal to pedigreed stock, at low prices.

Eggs for hatching, $1.00 for 15, until September 1st.
Write Wants. Mention RECREATION.

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Glass Eyes for Stuffed Birds and Animals
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Send 5c. in stamps for Catalogue
FRED. KAEMPFER
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Taxidermy work done in all its branches

FLORIDA BIRDS

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I have fine mounted specimens and skins of the rare Ardea occidentalis. Hon. John Lewis Childs' exhibit of Game Birds at the last Sportsman's Show should be sufficient guarantee of the quality of my work.

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For Exchange: One Wizard C. jr. Camera, 5 x 7, with case and 2 plate holders, cost $30, for 4 x 5 Premo Camera, or good repeating rifle of equal value. One No. 2 bullet Kodak, cost $10, for Colt's or Smith & Wesson revolver. Both cameras are almost new and in excellent condition.
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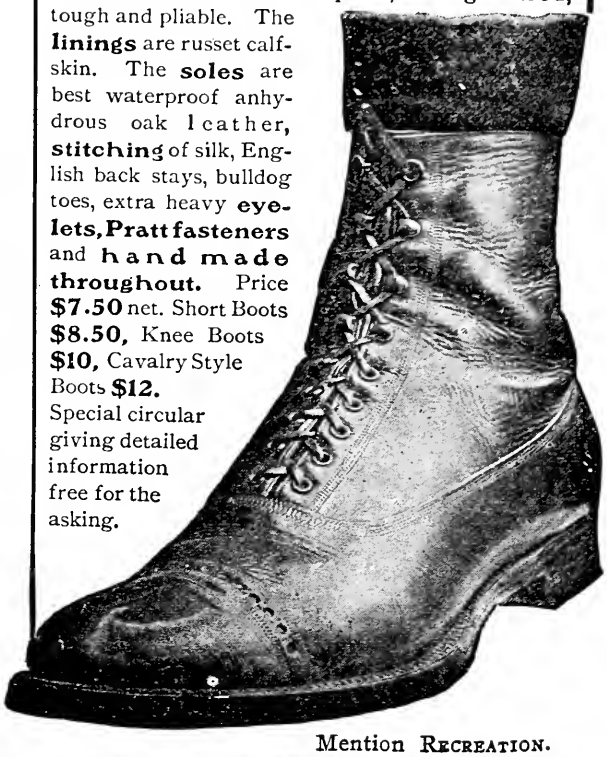

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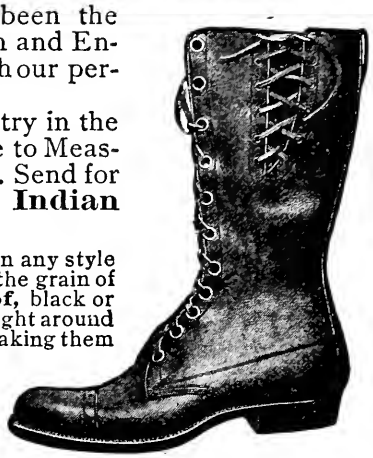

Illustration shows **No. 900, 14** inches high, Bellows Tongue, Made on any style toe desired, Uppers are Special Chrome Tanned Calf Skin, tanned with the grain of the hide left on; (Our Special Tannage) making the leather **water proof,** black or brown color, large eyelets and wide leather laces, laced at side to fit boot tight around top, sole, light, medium or heavy. The soles are Genuine Hand Sewed, (making them soft and easy) and made of the best Water Proof Oak Sole Leather.

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A TALBOT REEL

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Made by W. H. Talbot, Nevada, Mo.

This is one of the finest pieces of fishing tackle ever made. It is built like a gold watch. Equal to any Kentucky reel you ever saw. In tournaments, always a victor. Among the angler's treasures, always the chief.

I have but a few of these reels in stock, and this offer will be withdrawn as soon as the present supply is exhausted.

Sample copies of RECREATION for use in canvassing furnished on application.

A BELLIGERENT BUCK.

The Black Dog mountain region in Pennsylvania is reputed a great deer country. When I found opportunity to spend 2 days there last fall I thought myself lucky. It snowed hard the first day of my stay, but I spent the time in the woods locating the feeding grounds. By sunrise next morning I had 2 deer on the move. When they crossed the first clearing I was too far away to shoot. There they separated, and I followed the largest, a 5-prong buck. I trailed him hours, over mountain after mountain. Then he began to lag, thinking probably that I was not so dangerous as he had at first supposed. Finding he was heading through a long ravine, I made a detour, and waited for him at the other end.

He came in view about 70 yards away and I fired, breaking his shoulder. He fell. I waited a few minutes, ready to give him another shot if he needed it. As he did not move, I approached him, laid down my gun, and drew my knife. I again moved forward, and, to my amazement, he sprang up and charged me. I dodged behind a tree, but seeing one of his forelegs was useless, I grabbed him by the horns. During the tussle I was dragged hopelessly far from my gun, and at last he broke loose. I moved to get nearer, and again he charged. I caught him once more by the horns, and by his wounded foreleg.

There we were again. I had the buck and he had me. I had dropped my knife, and dared not loosen either grip, lest my game escape. As far as I knew, there was no one else on the mountain; but my only chance was to yell, and I yelled my best.

The farm-house at which I was stopping was over a mile away. Nevertheless, 2 of the boys heard me, and, after a time that seemed weeks, came to my assistance. They held the buck while I knifed him, and we 3 had all we could do to hang him up. His head now adorns my parlor, but when I think of all my work and the taxidermist's bill, I sometimes think he was hardly worth it.

S. A. McDonald, Harrisburg, Pa.

Will someone explain why the so-called shot gun smokeless powder can not be used in a rifle? Also, why smokeless can not be used in a muzzle loader? Gunmakers once said the same of black powder, yet the best shooting I ever did was with a fine, high grade of rifle powder in a muzzle loading shot gun.

M. E. B., Belleplain, N. J.

I received the Forehand revolver. It was like finding it. It is a good shooter and is all right.

R. Harrocks, Fonda, N. Y.

THE GARDEN OF EDEN TO DATE.

My experience is that a cinnamon bear will not fight under any circumstances. Even in a trap he will whine like a big pup. They grow large, and powerful, and are destructive to cattle, but have no stomach for a scrap. The silvertip is always ready and dangerous until dead.

Last fall while camping on Elk creek, Routt county, Colo., we named the place the Garden of Eden, because there were acres and acres of red raspberries, June berries, choke berries and wild grapes. The trout were all one size, 12 inches long. Deer were plentiful, grouse abundant, and there was enough mineral in sight to please an old prospector. There were a few woodticks, but no snakes. While in camp there, a party of 9 mail clerks from Omaha came along, and the sight of a fine buck strung up beside the tent and a string of a dozen fish just from the water, set them almost wild. In order to start them off right we gave them a ham of venison for supper, it being late in the evening. We heard nothing more of the boys until the next night when they came by the camp again, footsore and tired, but with no deer. We furnished more venison. Fortunately one of their party was an angler, and brought in plenty of trout. The third evening along came the boys again, empty handed. We offered them a hindquarter for supper, whereon the leader modestly remarked, "To —— with your meat; if we can't kill enough, we'll starve." They broke camp next morning and went down on White river, where it was reported there were more deer.

There is only one camera for a hunter, an Eastman No. 3. With a 30-40 carbine, a Kodak and a prospector's pick, a camp among game, fish and wild fruits, a mattress of pine boughs and a clear conscience, what more could one desire? We are going again next year, and we shall not forget the pick either. Our last assay ran $92 to the ton.

Sam Stevens, Cripple Creek, Colo.

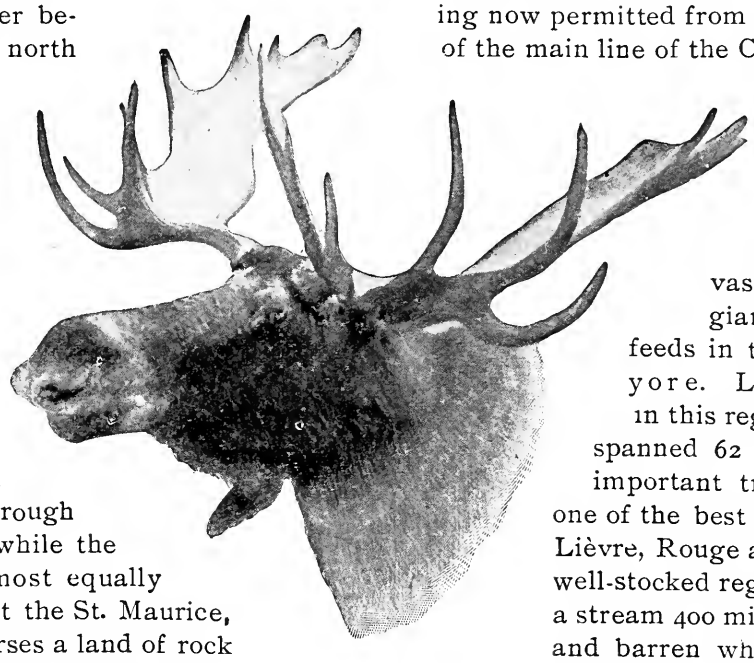
Until last fall I used a 30-30 Winchester for deer hunting. Then, inspired by an article in RECREATION, I bought a 25-35. With it I crippled a doe and a 10-prong buck, and as there was no snow on which to track them, I lost both. The doe was running at full speed and was hit, I should judge, in the flank or hind quarter. She fell, but rose unsteadily and disappeared before I could fire again. The buck was struck in the shoulder and fell to his knees. They are the only wounded deer I ever lost, and I feel sure that had I had a 30 I would have secured both. I traded the 25 for a 30-40, and the next deer I shot did not run 100 feet. I want a lighter gun for my next hunt, but am undecided whether to buy a 30-30 carbine or a 38-55. Should be glad to have your readers advise me. A. Huff, Minneapolis, Minn.

Canadian Big Game

THE time for the turning of the leaf will soon have come: the velvet on the antler is pealing in long strips, leaving a clean horn the color of buckskin. Soon the law will permit the shooting of the moose, caribou and deer—and wouldn't you care for a head or two yourself?

Well, why not try Quebec, Ontario, Manitoba or some other of the sisterhood of the Canadian Provinces? By such a choice you would probably be successful beyond your expectations, as many others have been. Only the other day a well-known physician of Winchester, Ky., wrote: "I met you last summer at Hotel Bellevue, Timiskaming, and you kindly located a camping party for me on Ostaboining where they had fine sport; getting several moose deer and fine fishing. I wish to get some information regarding, etc."

Equally trustworthy information is **at your disposal.** Ontario has thrown open her jealously guarded big game preserves, the shooting of moose, caribou and deer being now permitted from October 15th to November 15th north of the main line of the Canadian Pacific Railway, from Mattawa to Port Arthur, a region enormous in extent and carrying a heavy stock of game.



The great province of Quebec yet holds its own as the home of vast quantities of deer and the giant bull moose bathes and feeds in the great Lake Kipawa as of yore. Last Autumn a head obtained in this region by a Montreal sportsman spanned 62 inches. The Gatineau, an important tributary of the Ottawa, flows through one of the best deer ranges of the continent, while the Lièvre, Rouge and Nord drain similar and almost equally well-stocked regions.

Further east the St. Maurice, a stream 400 miles from source to mouth, traverses a land of rock and barren which the moose, the caribou and the bear find very much to their tastes.

Manitoba is as noted for its moose as for its duck and chicken, and those who can spare the time may ensure a successful hunt by visiting the Prairie Province. Beyond lie the Territories and British Columbia, with their hundreds of thousands of square miles of plain, forest and mountain, offering unsurpassed hunting for moose, elk, blacktail, sheep, goat and grizzly.

For further information write to any officer or agent of the

CANADIAN PACIFIC RAILWAY,

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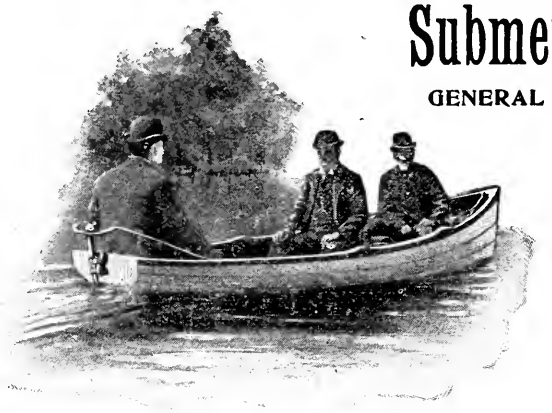

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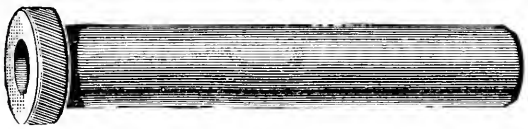

Convert your fly rod into a bait cast'ng or boat rod. Made of brass and nickel plated. Remove the first joint and set the Shortener into the handle and the second joint into the Shortener. **Sent, Postage paid, 50c.**

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FLY FISHERMEN—On receipt of self-addressed envelope I will send one of McNaughton's sure catch flies. Address

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I have received the Century camera which you sent for club of subscribers and thank you for the promptness, courtesy and generosity you have shown. The camera surpasses my fondest expectations, and I feel that you have simply made me a present of it. I have shown it to a dozen or more of the boys and they all admire it greatly.

Chas. B. Funk, Cleveland, O.

SOME GOOD GUIDES.

Following are names and addresses of guides who have been recommended to me, by men who have employed them; together with data as to the species of game and fish which these guides undertake to find for sportsmen.

If anyone who may employ one of these guides should find him incompetent or unsatisfactory, I will be grateful if he will report the fact to me.

FLORIDA.

Cason Bros., Frostproof, bear, deer, turkeys, quail, snipe.
C. H. Stokes, Mohawk, deer, alligators, turkey, quail and snipe.

IDAHO.

John Ching, Kilgore, elk, bear, deer, antelope, mountain sheep, trout and grouse.
Chas. Pettys, Kilgore, ditto

MAINE.

W. C. Holt, Hanover, moose, caribou, deer, grouse, and trout.
H. R. Horton, Flagstaff, bear, moose, fox, grouse and trout.

MONTANA.

James Blair, Lakeview, elk, bear, deer, trout and grouse.
A. T. Leeds, Darby, ditto
Chas. Marble, Chestnut, ditto
Wm. R. Waugh, Darby, moose, bear, elk, deer, sheep, grouse and trout.
A. Leeds, Hamilton, ditto

VIRGINIA.

W. T. Gladding, New Church deer, turkeys, quail.

WYOMING.

Frank L. Peterson, Jackson, elk, bear, deer, mountain sheep, antelope, grouse and trout.
S. N. Leek, Jackson, ditto
James L. McLaughlin, Valley, elk, bear, deer, mountain sheep, antelope, grouse and trout.
Felix Alston, Irma, ditto

CANADA.

W. A. Brewster, Banff, Rocky Mountain Park, Can., bear, sheep, goats, grouse and trout.
Wm. S. Andrews, Lillooet, B. C., deer, bear, mountain sheep, goats, grouse and trout.
B. Norrad, Boieztown, B. C., moose, caribou, grouse and trout.

Do you want a Good, Reliable Substantial, Well Made

Single Barrel Shot Gun

If so, send me

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and I will send you such a Gun as a premium

It is made by the *DAVENPORT ARMS CO.*, and this means it is made of good material and that only good workmanhip is put on it.

This is one of the many remarkable opportunities *RECREATION* is offering to men and boys to fit themselves out completely for shooting and fishing.

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Fisk's Aerating Minnow Pail

☞ The only Minnow Pail in which Minnows can be kept alive indefinitely.

Has an air chamber at the bottom holding 260 cubic inches of condensed air forced in by the Air Pump attached, and by a simple rubber attachment the air is allowed to escape into the water gradually, supplying the fish with the oxygen consumed by them. One pumping is sufficient for ten hours.

Height, 1 foot; diameter, 10 inches; weight, 7½ lbs.; water, 2½ gallons; keeps 50 to 150 minnows, according to their size.

IT KEEPS THEM ALIVE.

Price, $5 net—Sold direct.

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YEARS OF HARD SERVICE, is built entirely by HAND LABOR. Carefully framed and modeled BY HAND NOT BY MACHINERY. Its indestructible steel frame is made to stand salt water by heavy galvanizing. NO BAGGING between the ribs is possible owing to the automatic tension of the Spring Steel Frame of 12 longitudinal and 13 diagonal ribs. This ribbing is covered by U. S. patents. Makes the

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With Air Chambers in They Float

100 pounds

Bottom Boards Rest on the Frame Not on the Canvas

They are Stiffer than a Wooden Boat because the lines are fuller, and are much easier to row or paddle.

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Send for catalogue of our full line of Folding Canvas Boats and Canoes, which have been adopted by Governments of United States, Canada and England. Just filled an order for U. S. Government who prefer our boats. Received medal and award at Chicago World's Fair. If you investigate we will get your order. Mention RECREATION.

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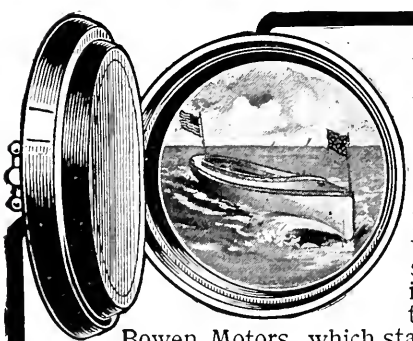

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Fay & Bowen Launches are the very finest in construction and finish; equipped with the famous Fay & Bowen Motors, which start when started, and run until you stop them. No crank or handle. A perfect and unique Ignitor. Motors from 1½ to 25 H. P. Send for catalogue.

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Built upon lines of Grace and Beauty, with Strength, Power and Speed. Send 10 cents for Launch and Marine Engine Catalog "L"

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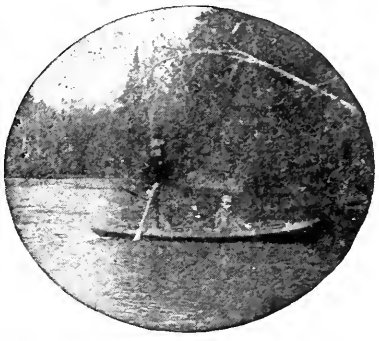

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Linenoid Sectional Canoe.

Length, 14 feet; Beam, 30 inches; Depth bow, 18 inches; Depth stern, 16 inches; Depth amidships, 14 inches; Weight, 50 pounds; Length when nested, 5 feet.

Furnished with one N. J. Double Paddle, one pair Combination Handles, six mats for bottom, and finished in handsome colors.

Price, - - - $40.00.

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Length, 31 inches; Beam, 8 inches; Depth amidships, 4¼ inches.

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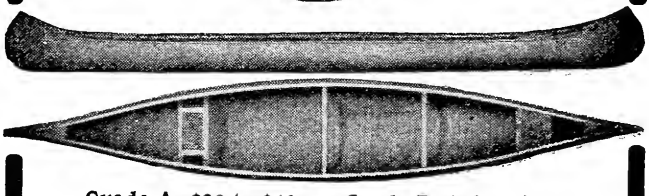
Rushton Canoes

"The Quintessence of Canoe Quality."

"INDIAN" **MODEL**



Grade A, $38 to $40. Grade B, $30 to $32.

Length, 15 ft.; beam, 32 in.; depth at center, 12 in. Oak, cedar and cherry frame, canvas cover. Weight, 56 to 66 lbs.

Some canoes are quite strong, but slow; others are quite fast, but fragile; but in the

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you will find strength and speed combined. I make my canoes out of air-seasoned Michigan white cedar and I also make a specialty of canvas covered cedar canoes. Better see my models before you decide to buy.

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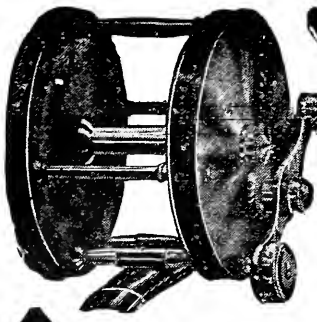

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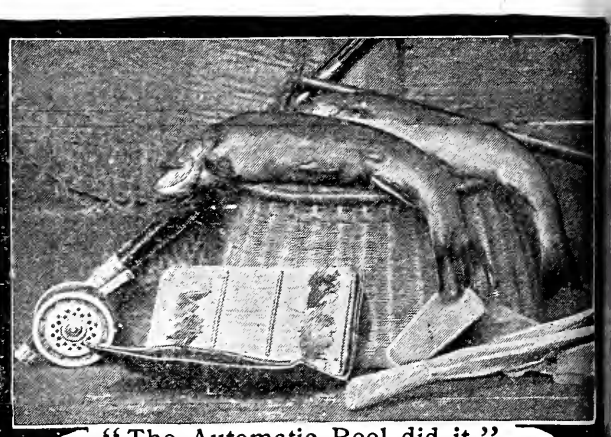

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No slack line—when fish is hooked, the little finger instantly releases spring which winds the line automatically. This continual pull prevents fish from dislodging hook from his mouth. When once hooked, he's your fish. Reel can be made free-running for casting.

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Small Profits—Quick Sales.

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Fly Rods 10 feet, 6 ounces **70 cts.** **Bait Rods** 9 feet, 8 ounces

3 piece and extra tip, cork grip, in wood form

Try our new **Braided Silk Enameled Waterproof**

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Size No. 5, 4½ cents per yard. Size No. 4, 5½ cents per yard. Put up in 10-yard lengths connected.

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15 MILES IN TWO HOURS. LAUNCH ON EXHIBITION IN STORE

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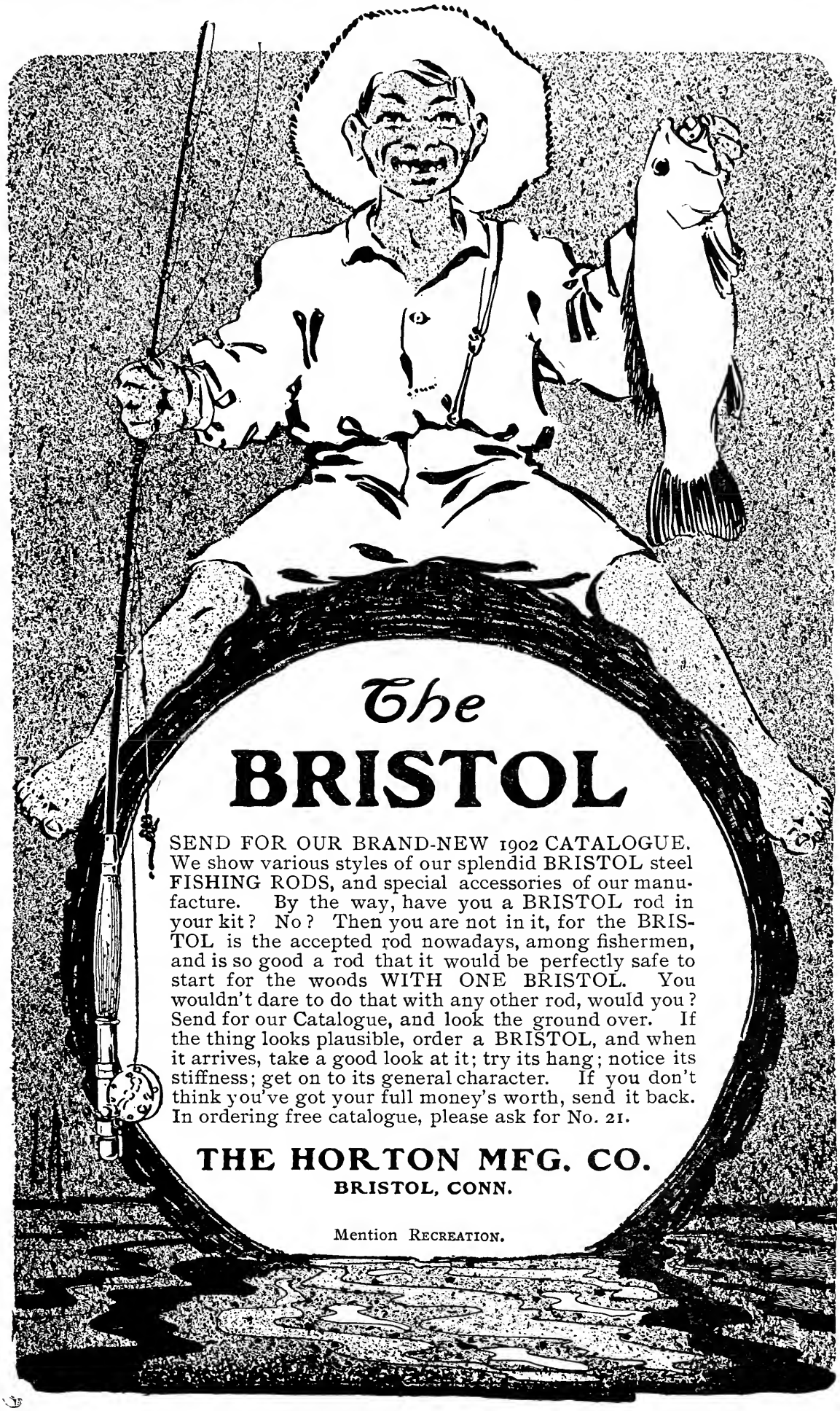

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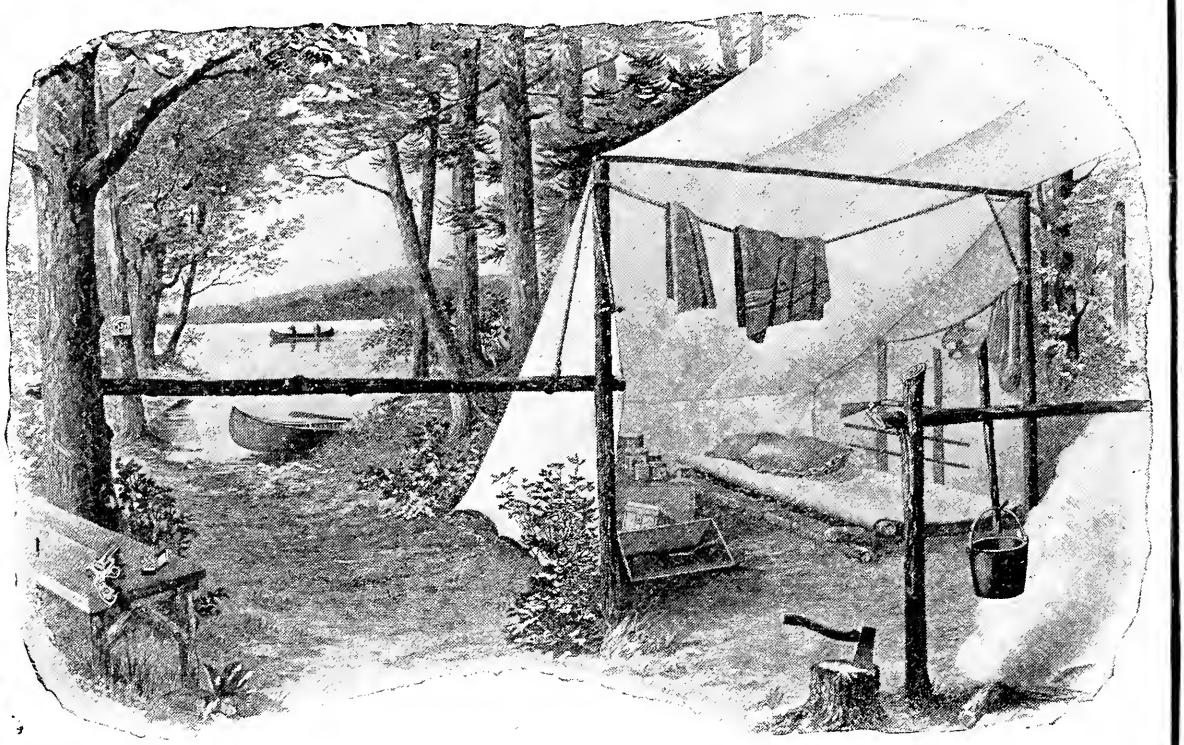

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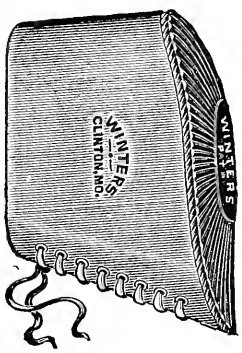

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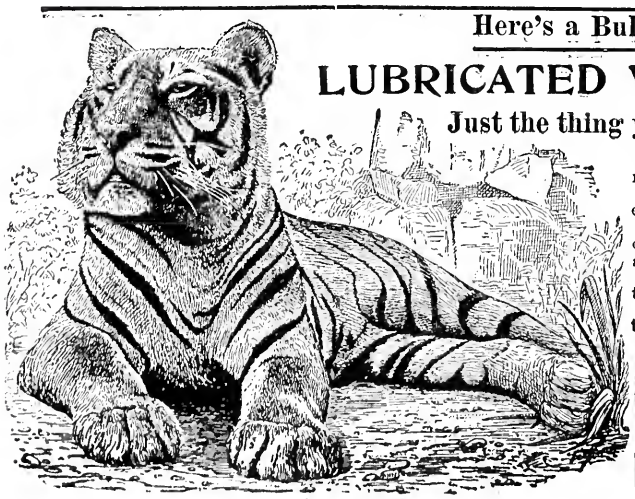

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Just the thing you have been looking for for years.

PREVENTS FOULING, leading and deposit of metal in the grooves of the rifling.

CLEANS AND LUBRICATES the barrel with every shot, making swabbing entirely unnecessary.

ARE PERFECTLY ADAPTED to any style of gun, slow or rapid twist, Black or Smokeless Powder, and are more uniformly accurate in shooting than any other form of missile known.

PERFECTLY FILL ALL THE GROOVES of the rifling, and are thus backed by the full charge of gas generated by the powder explosion.

THERE BEING LESS FRICTION, the velocity is greatly increased and the trajectory is flatter than with any other bullet ever made.

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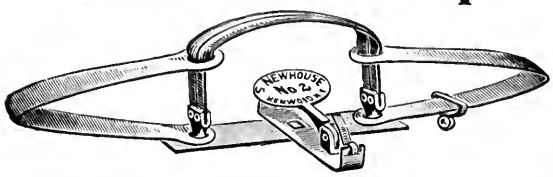

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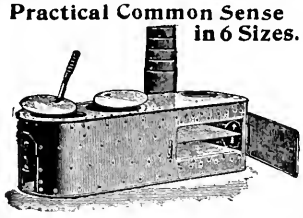

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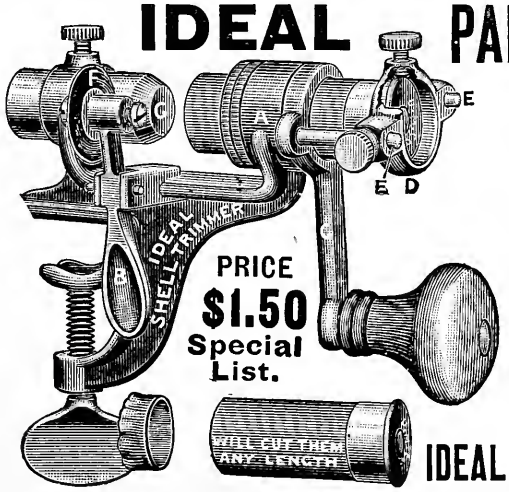

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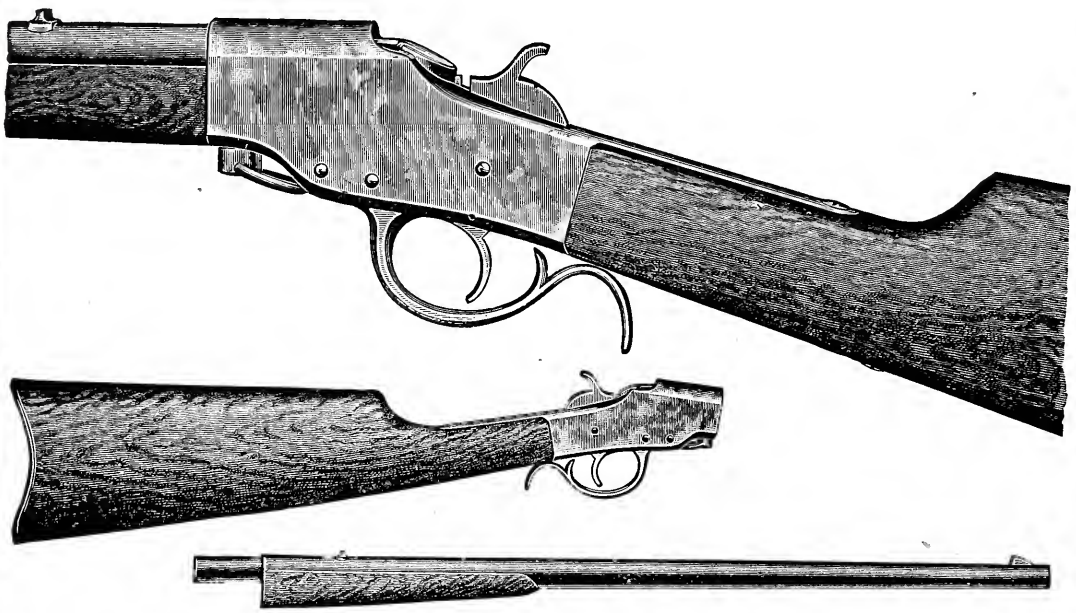

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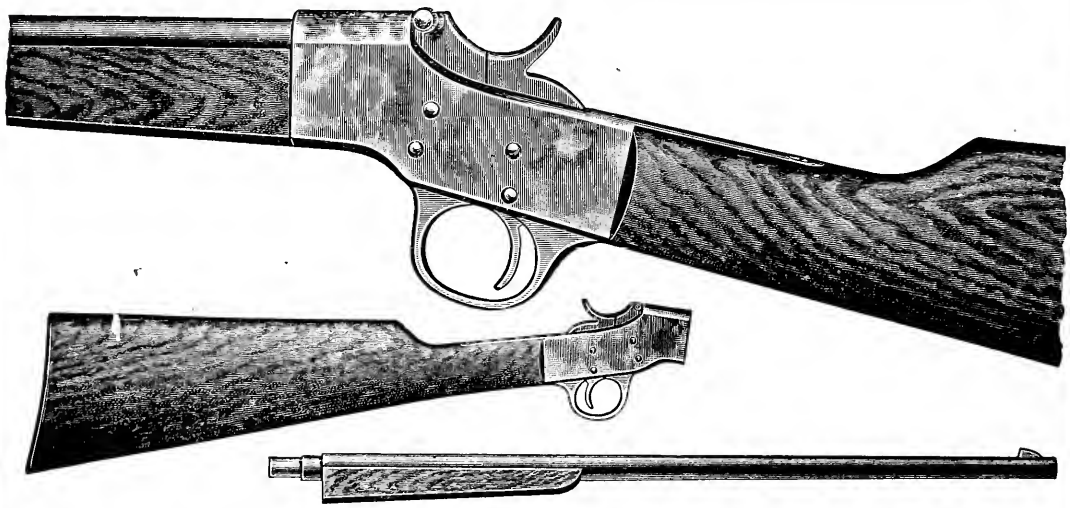

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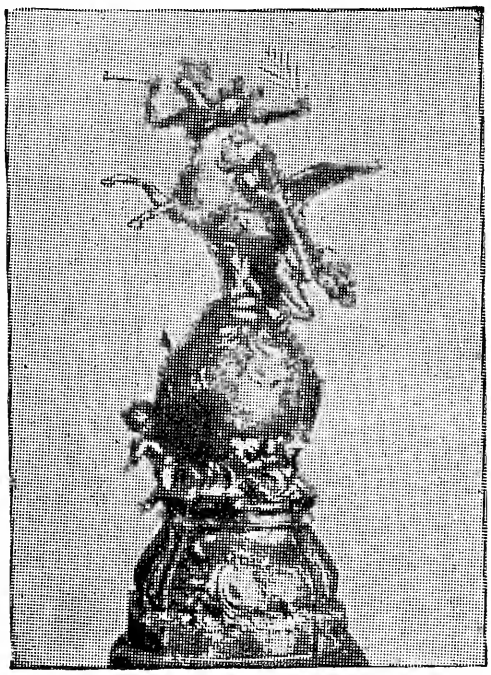

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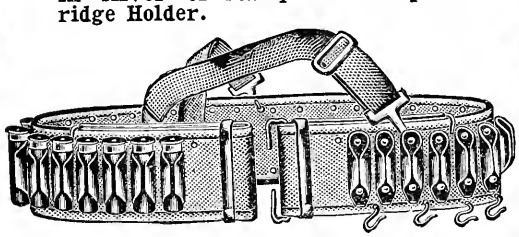

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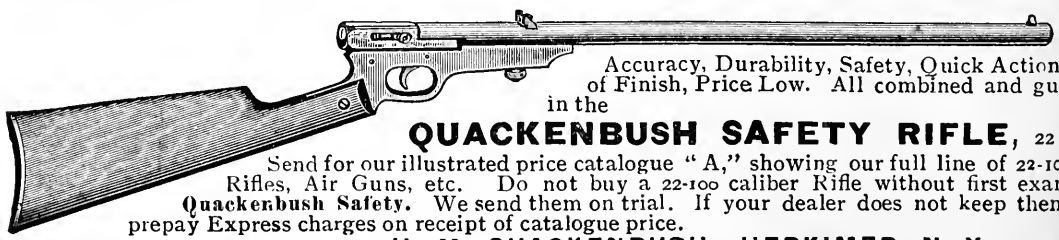

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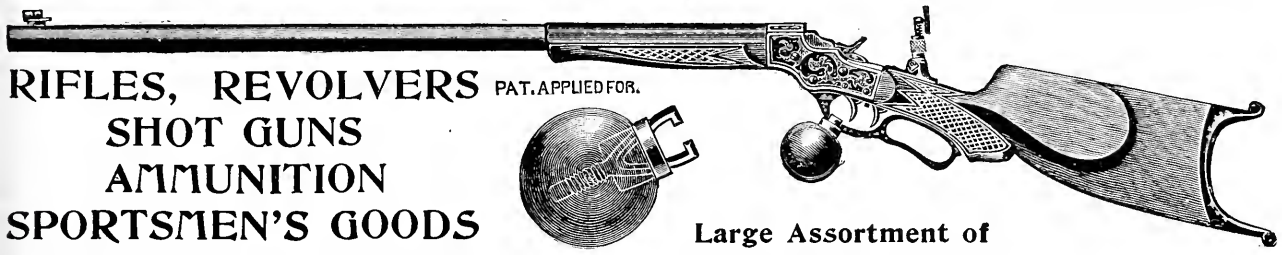

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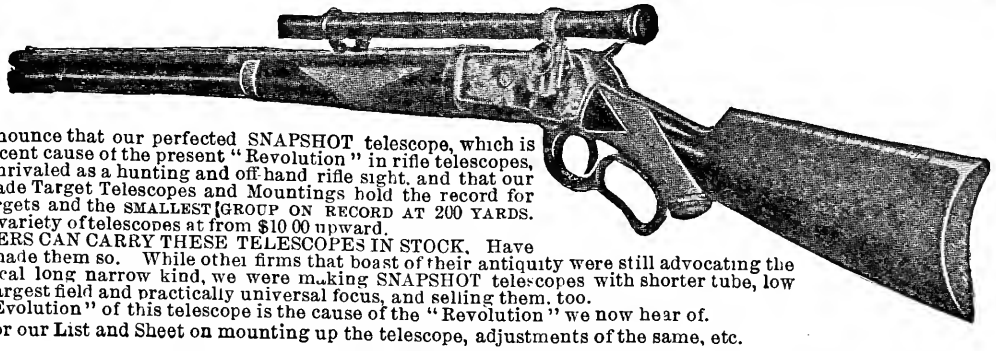

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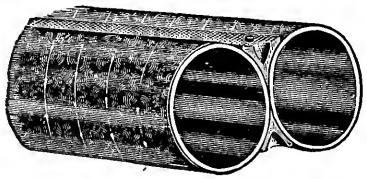

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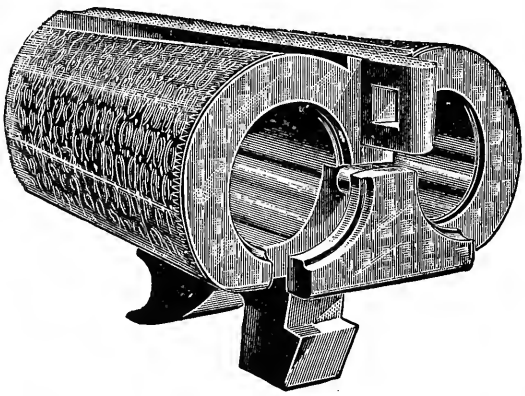

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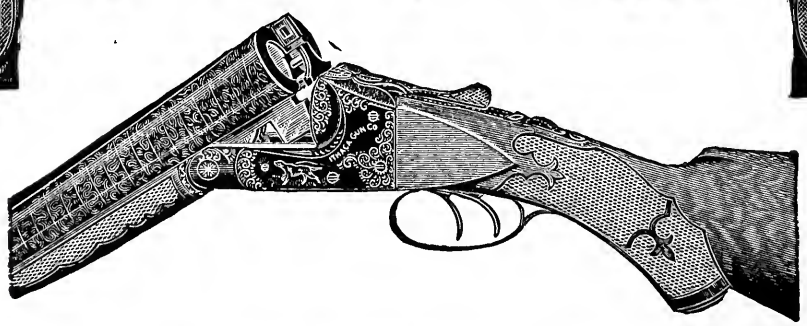

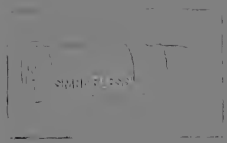

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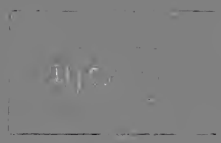

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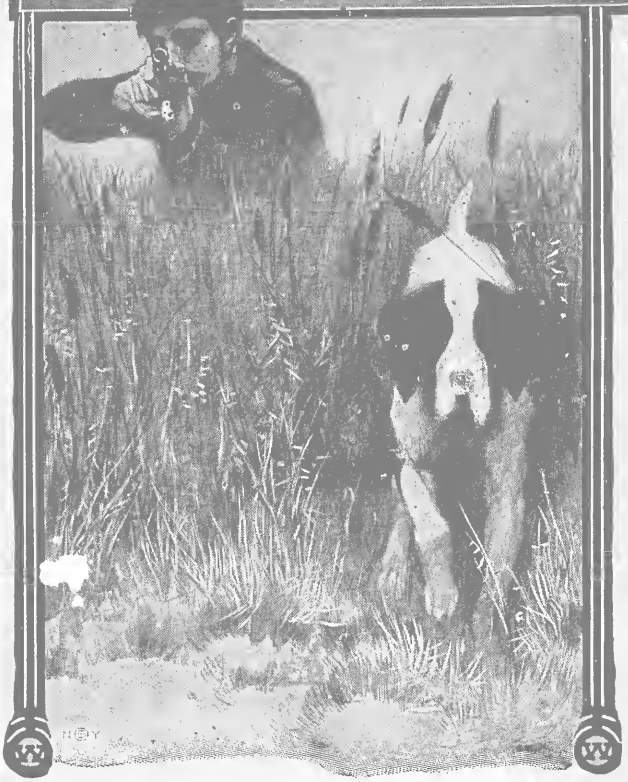

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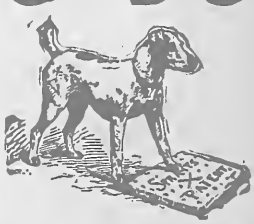

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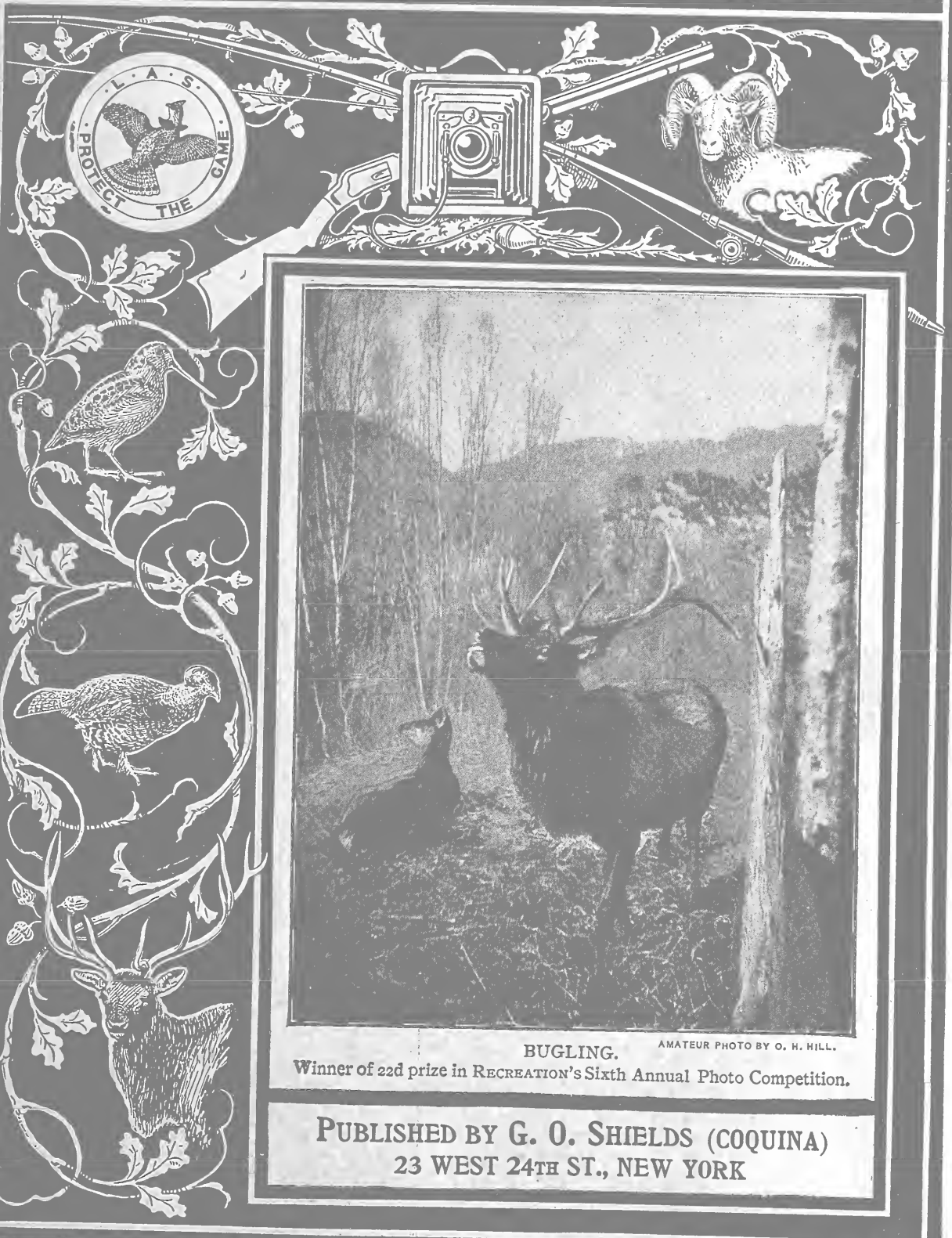

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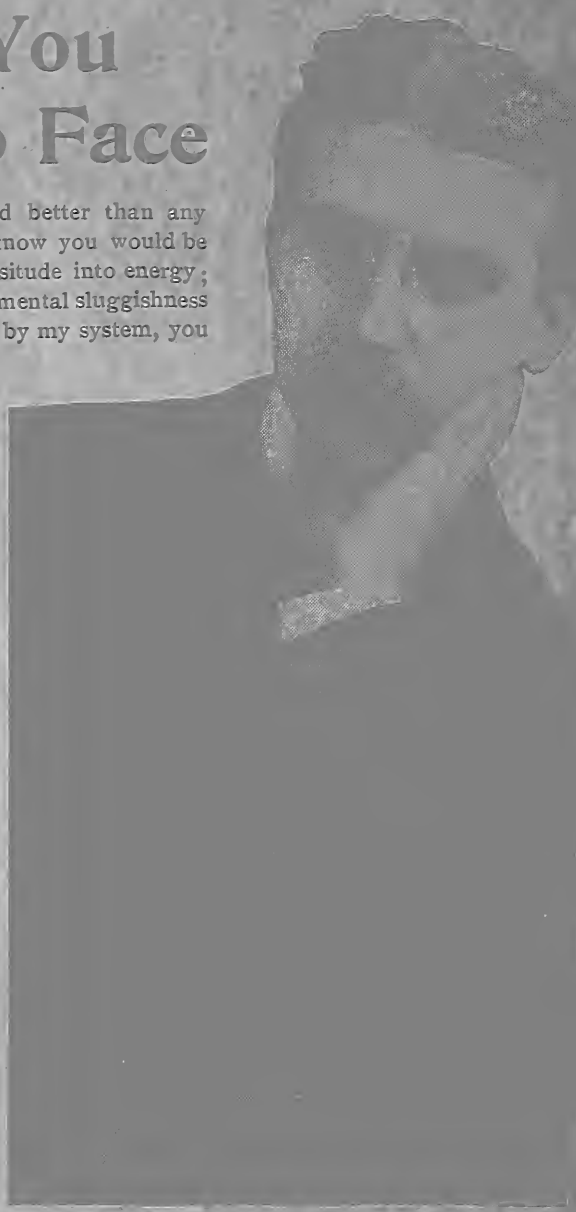
If I Could Meet You Face to Face



and explain *why* the Swoboda System is different and better than any other and infinitely superior to drugs and medicines I know you would be convinced, and being convinced that I can turn lassitude into energy; feebleness into strength; ill health into robust health; mental sluggishness into activity, and insomnia into sound healthful sleep, by my system, you would place yourself under my direction. To simmer the matter down to its lowest terms I haven't a doubt but thousands of intelligent men and women who really need my help to restore normal conditions have read my advertisements time and again and would have long ago adopted my system *had they believed that what I claim is true.*

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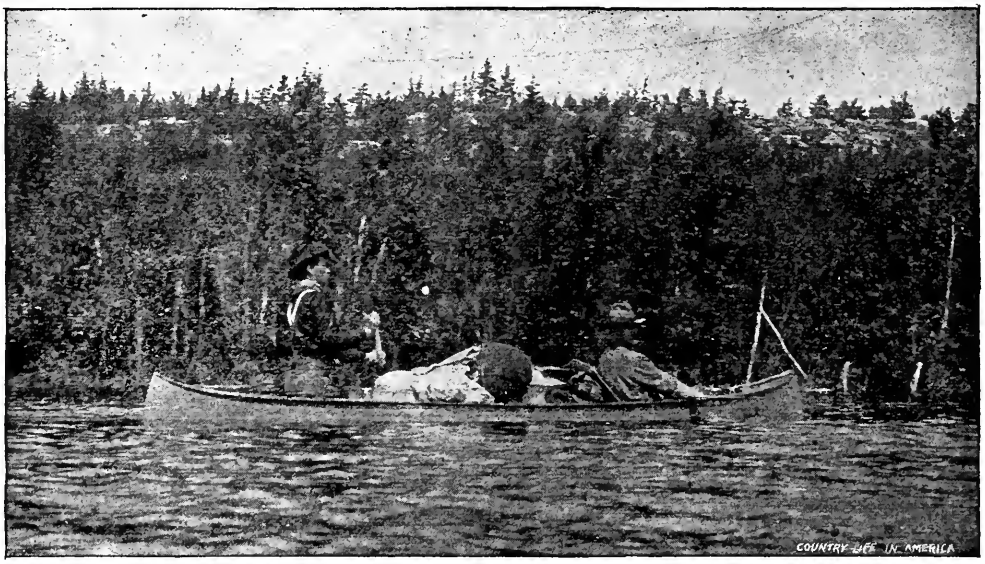

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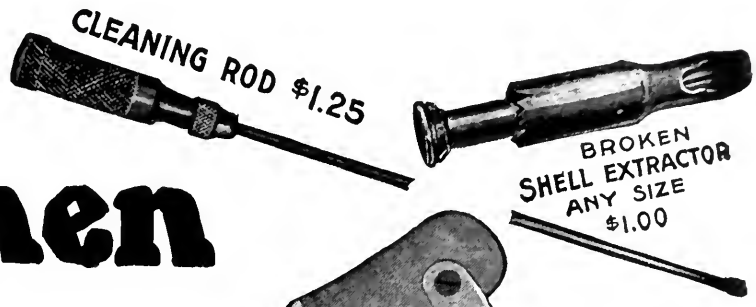

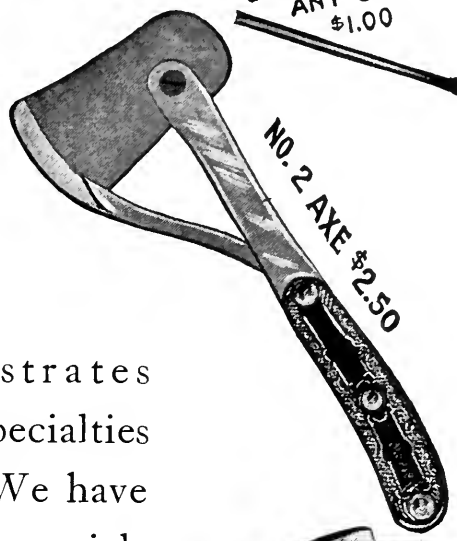

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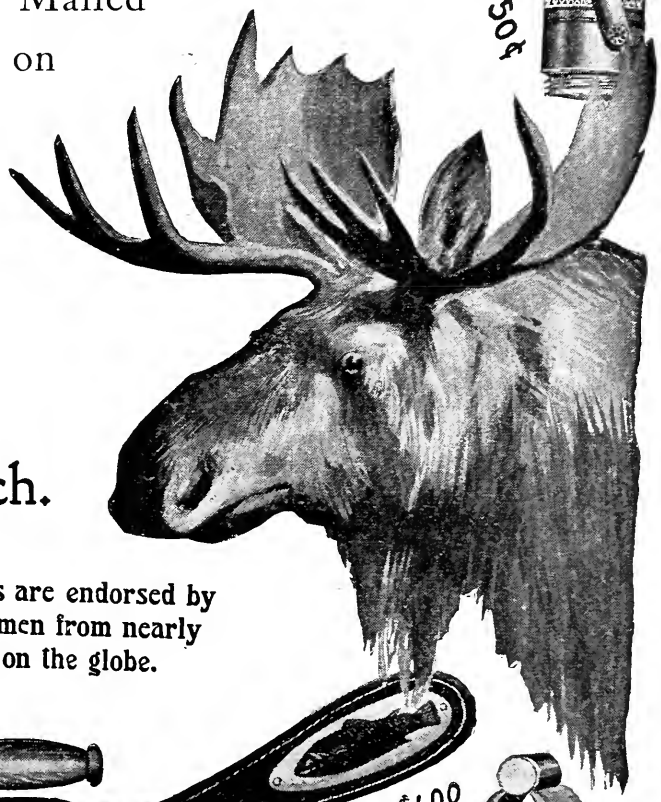

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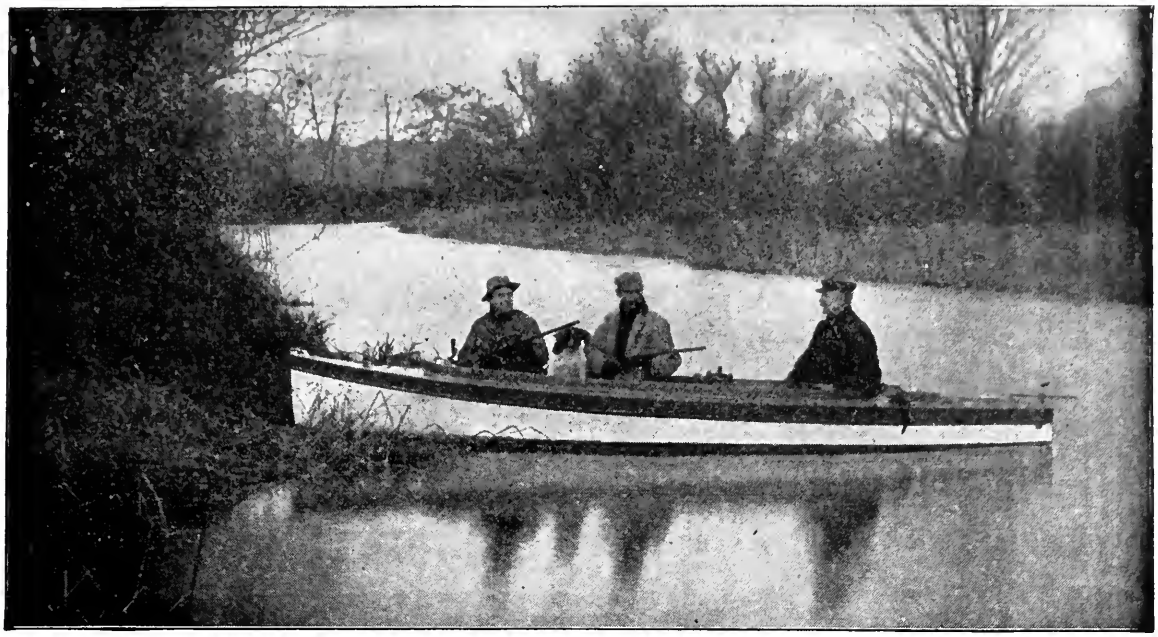

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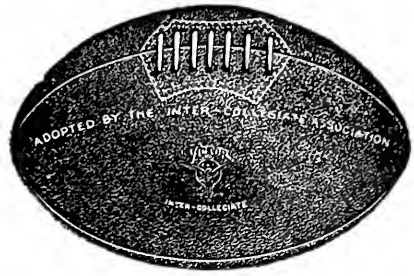

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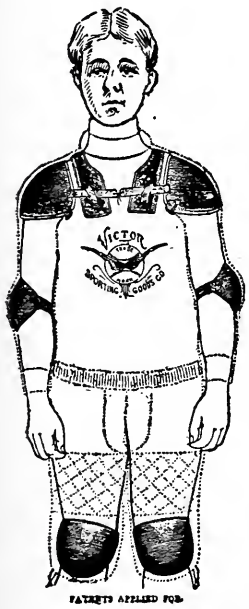

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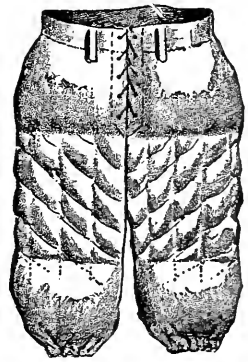
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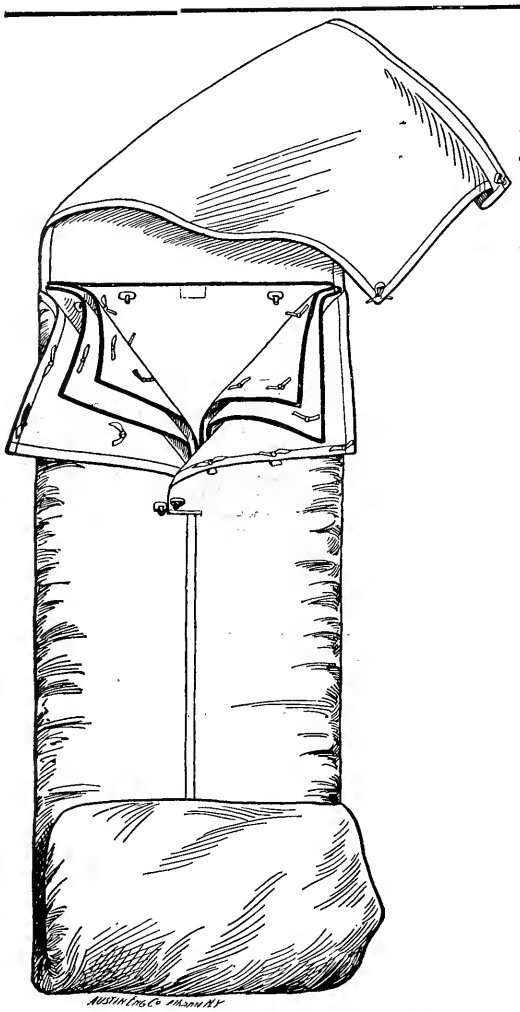

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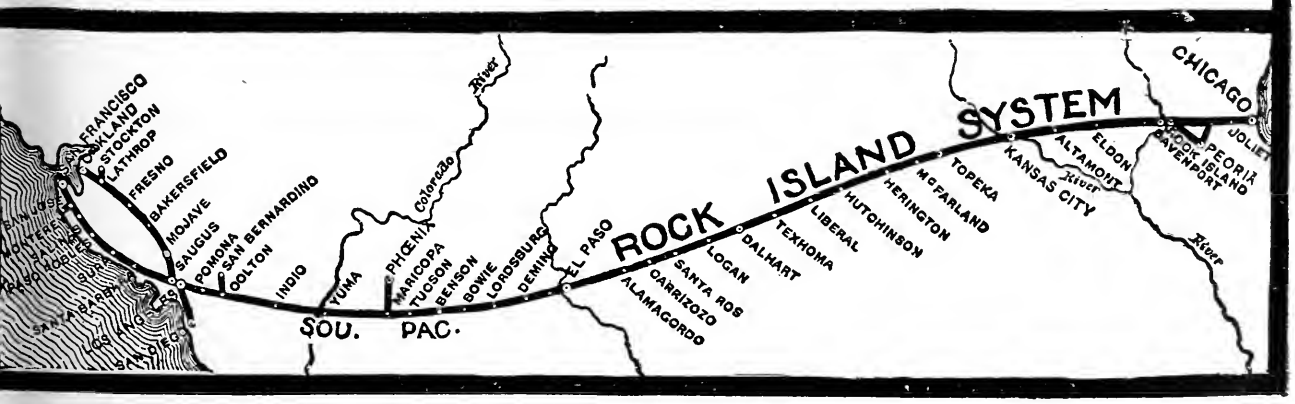

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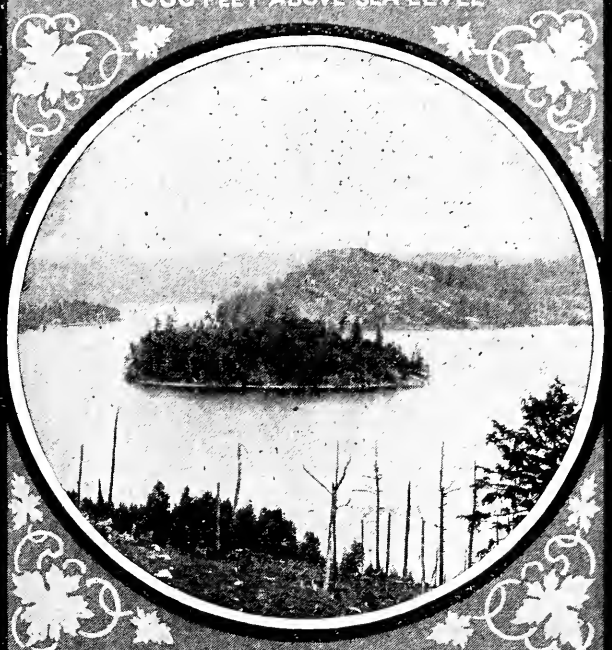

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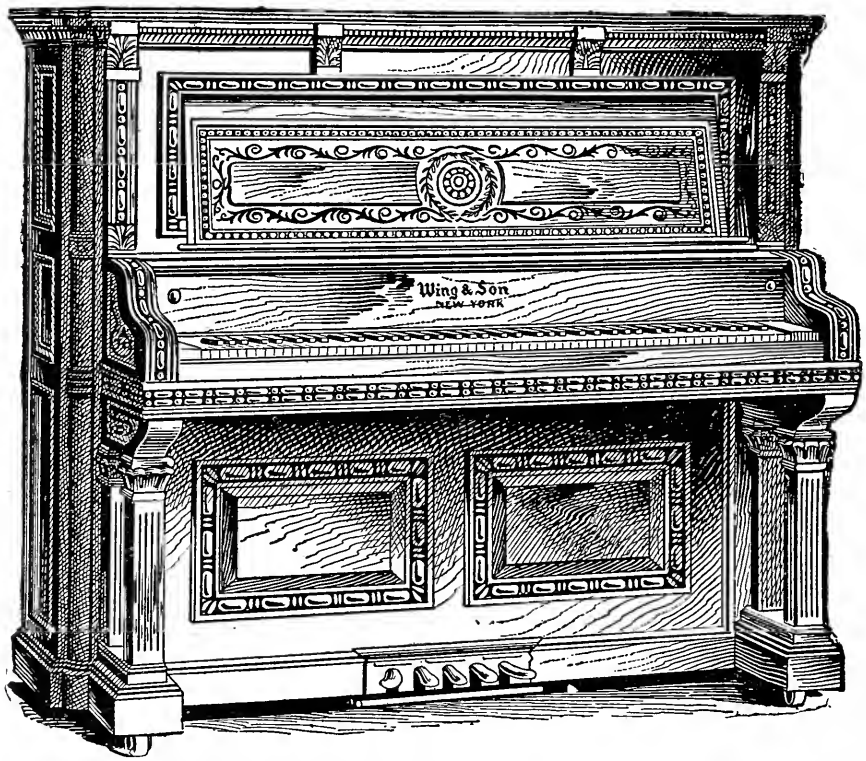

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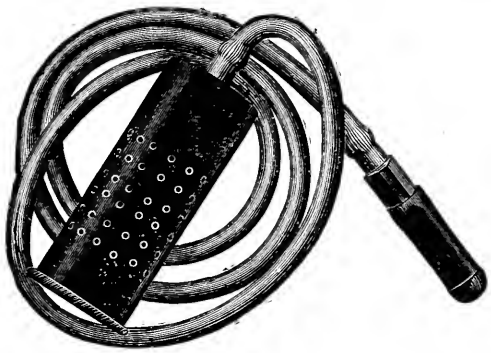

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EXPRESS CHARGES PAID BY US.

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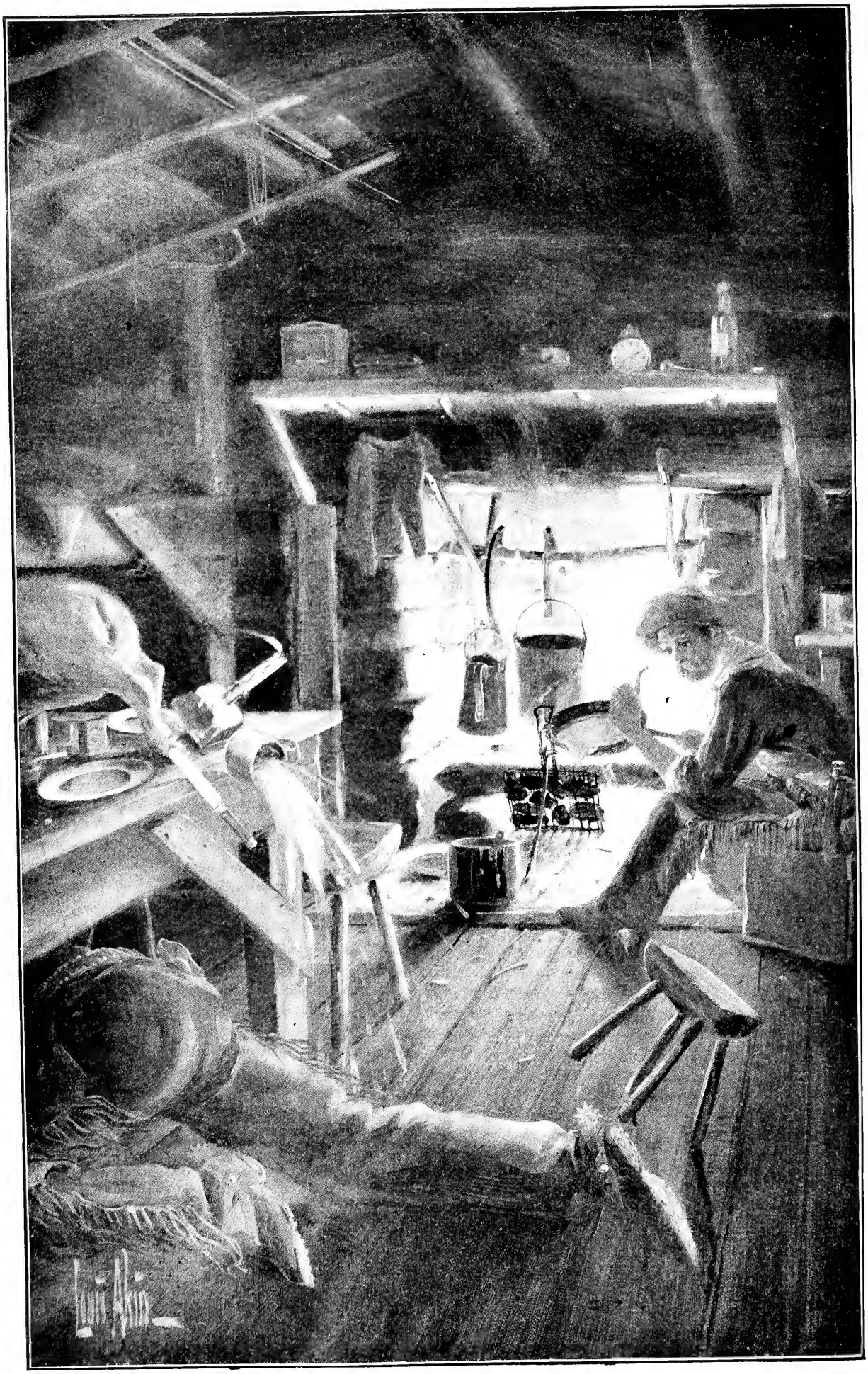


ONE WENT UNDER THE TABLE AND THE OTHER OVER IT.

RECREATION

Volume XVII. SEPTEMBER, 1902. Number 3.

G. O. SHIELDS (COQUINA), Editor and Manager

MOUNTAIN SHEEP IN IDAHO.

GEO. F. WRIGHT.

We started to look up one of Idaho's lost mines. There are several. This one was of the right sort, however; not the kind where an old and dying prospector draws a map on a piece of bark, using blood instead of ink, and the hero does the rest. The story goes, or it does with some, that a man by the name of Giles had made a stake in the placer mines in the early 60's, and on his way out he ran into a goodsized bunch of Shoshone, or Snake, Indians who were handing down to posterity some hair-lifting tales by means of a paint brush and the side of a mountain. Giles was thirsting for knowledge or a place to hide, but the reds saw him first. He put on the boldest face he had with him, stepped up to the boss painter, cocked his head on one side, glanced at the canvas, so to speak, and tried to think up a good talk. The bucks stood around with war clubs at half mast waiting for a verdict; but Giles, though a diplomat, after a fashion, got confused. One set of scrappers in the picture were all cut up camp stove length, and, there being no flags, he could not tell whether the battle had gone to the Nez Perces or the Snakes, and whether the picture was a sort of monument to a great victory or a place for a lot of widowed squaws to go and butt their heads against. He took no chances, but asked the artist where he got his dye stuff. That would not fit in some countries, but it was a compliment there, as the Indians prided themselves on having the best and most lasting article in paints in that section. They were so pleased they gave up the secret.

"Burned the rocks," said the boss.

Giles did not know whether it was a joke, or if it was safe to build a fire anywhere except on the water; but they quickly relieved his mind in a manner different from that usually meted out to a white man. They took him to a place where one of the walls of a ledge had peeled off and exposed several feet of what he at first thought was gold. He began looking around to see if Solomon had left any of his tools lying about, but a closer inspection satisfied him it was only copper. He took a few pounds, to show he was a sure enough prospector, went to Lewiston, threw his mountain rig into his cabin, and went back East. There he lived in good style until one hazy day he went up against Wall street with a 4 flush.

When he crawled out from under the trance he thought of the great and glorious West. He hit the trail so hard that in a few weeks he was back in Idaho and at the cabin deserted nearly 30 years before. Lewiston was a city and the cabin a wreck. The only thing the pack rats had left was the old chunk of ore. Giles had it essayed, and nearly had a fit when he got returns that it was about one-eighth gold and the rest

copper. Back to the Snake river and the picture gallery he flew, but time had made many changes. Bushes had grown to trees and water spouts had harrowed up the country. With his failing memory he could only locate a few scattered paintings, and the Indians were gone, as Chief Joseph, of the Nez Perces, had cleaned up the Shoshone bucks and sold the squaws to the white miners over in the placer diggings. Giles is still out there, trying to locate the paint shop.

We were also trying to find that or anything else that looked as if it would make a mine. We finally ran out of meat, and had to take a trip up to the snow. In less than an hour we had 2 bighorn rams. That night in the cabin, while one of the boys was making dough gods and broiling a few choice pieces of mountain sheep to fit in several large appetites, the dog, which was a cross between a set of bunks and some groceries, thought he heard something down in the garden digging up one of his *caches*, and went out to investigate. His master followed. They returned so rapidly that one went under the table and the other over it. It was several minutes before we found out that the dog had tried to bring a cougar into camp alive and had nearly succeeded.

A few days later, while walking along the river, I saw a mountain sheep standing in a little pool of sun-warmed water. I got quite close to it before either of us was aware of the other's presence. The animal was so low down I concluded she had a lamb near and thought the warm water had taken the curl out of her hairpins, as her horns were nearly straight. What interested me most was the way she was winking her nose, just as a llama in a St. Louis zoo once did before it spit a wad of chewed grass on to my new white shirt and into my eyes. As the sheep and I stood facing each other, I thought I ought to have one of those street car health signs hanging to my neck. She was not loaded, however, and soon trotted off up hill, where a monkey could not go without climbers.

If any one doubts the sheep story I shall be pleased to send him the address of an old hunter and Indian fighter, who doesn't drink, and who says he has seen several such sheep. I don't think anyone will doubt his word when they learn that he is one of the survivors of the 'Dobe Walls fight; one of the gallant little band that held those mud walls for days and days and several nights against a stampede of Mexicans, Indians and other chopped feed. He had a younger brother with him, and together they were defending a weak spot in the dobe, when the allied forces rammed a hole in it with a log. Anyone who has ever been down in that section without a water bottle, where everything that is not red hot has a hook or a thorn on it, will appreciate the log part of this history. When the hole was made, the younger brother was hit by a bullet, fired probably by a Mexican with his eyes shut. As he fell the elder brother just doubled him up and stuffed him into the hole, thereby stopping the influx of poisoned arrows, copper balls, and sand fleas. At that stage of the game the blast of a C sharp bugle was heard, and the allied forces started for Mexico.

After 2 or 3 extra sessions of Congress it was decided in Washington that there was trouble in New Mexico. Word was sent out to the commandant of the nearest post, except the one the hole had been punched with, that he could move, which was ridiculous to him, as he had the gout; but he sent his able second in command, and they arrived tired and hungry. The human plug was pulled out of the wall and both were mended. The younger brother is telling fortunes for the miners, the elder telling lies for the drinks.

WHERE THE WILD DUCK QUACKS.

GEORGE MCADAM.

You may talk about your fishing,
Where the water boils a-swishing,
And of going home with nothing but your
"fish tales"
In
Your
Sack;

But for me there's nothing in it,
To compare with one sweet minute,
When, gun in hand, I hear the mallard
Quack!
Quack!
Quack!

On a joyous autumn morning,
Out just before its dawning,
When the throb of nature in your veins,
leaves
In your
Heart
No lack;

Down to the water gunning,
You are hurried into running,
For up the lake he's coming, with his
Quack!
Quack!
Quack!

But he's there before you're ready,
And he's gone before you're steady
Enough to train your fowling-piece so's to
get
Him in
Your
Sack;

But you needn't look so sorry;
Just climb into that dory,
And get ready for the soiree, of the
Quack!
Quack!
Quack!

For there's plenty to be doing,
While you're standing 'round a-stewing;
And the gay and festive duck for fooling
hunters
Has
A
Knack.

Your decoys must be just right,
You must yourself be out of sight,
And your boat be hidden quite, at the
Quack!
Quack!
Quack!

Oh, to fool the wary flyer,
Than which there is none shyer,
And bring him home, so plump and round,
enclosed
Within
Your
Sack!

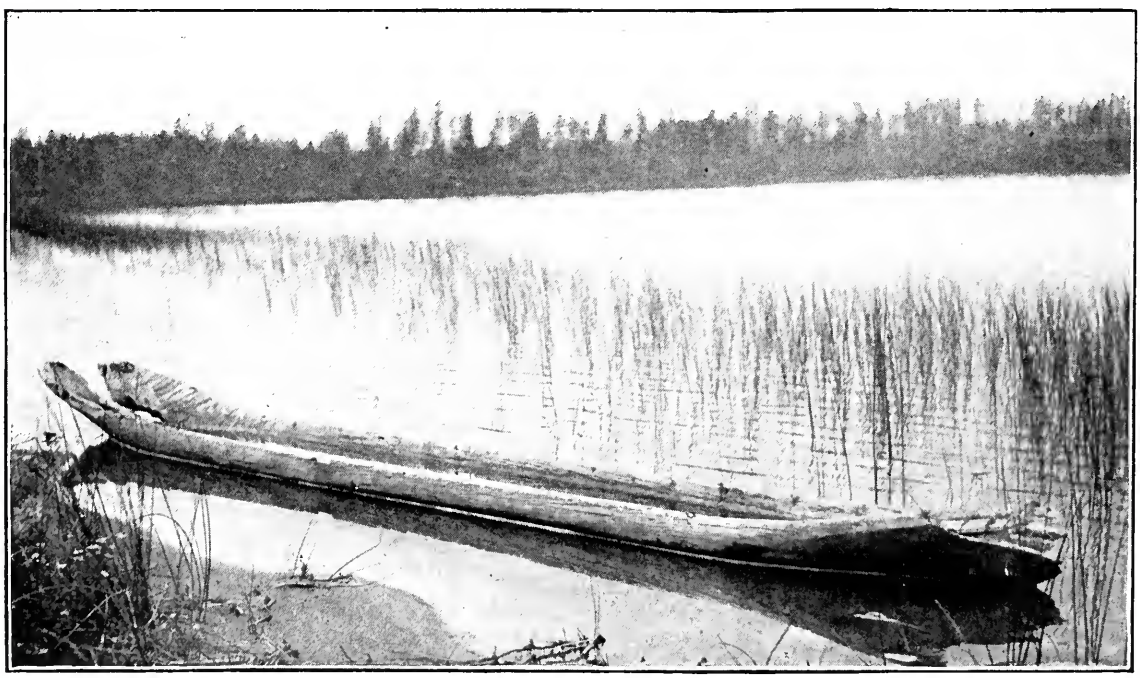
This is surely recreation,
And will make a whole vacation
For the man who's left vocation for the
Quack!
Quack!
Quack!

A Hamilton girl who had been very clever at college came home the other day and said to her mother: "Mother, I've graduated, but now I wish to take up psychology, philology, bibli—"

"Just wait a minute," said the mother. "I have arranged for you a thorough course in roastology, boilology, stitchology, darnology, patchology, and general domesticology. Now put on your apron and pluck that chicken."—Saxby's Magazine.

AMATEUR PHOTO BY RICHARD HALL.

AN EXCLUSIVE PICNIC.



AMATEUR PHOTO BY EDWARD C. CONGDON.

THE RUSHTON OF OUR ANCESTORS.

A MOOSE QUARTETTE AND A SOLO.

J. R. KING.

September 9, 1901, Dr. D. W. Greene of Dayton, Ohio, and I started for a moose hunt in New Brunswick, arriving at Fredericton the 11th. We remained there one day, buying provisions and necessary footwear. For the benefit of those who have not taken a hunting trip in New Brunswick I suggest that they defer buying footwear until they reach Fredericton. We received much valuable assistance from Mr. R. P. Allen, secretary of the Tourist Association of Fredericton. Those contemplating a trip there will find him a valuable assistant and thoroughly reliable.

The afternoon of September 12, we started for Boistown, arriving at 6 p.m. There we were met by E. W. and B. Norrad, who were to be our guides. They took us that evening by wagon to Hayesville, 10 miles distant. Early the next morning we were ready to start for their camps, 30 miles Northwest. From Hayesville we went 4 miles by wagon. Then everything had to be loaded on a sled and hauled the remainder of the way, over a fairly good road through an unbroken forest. That took us nearly 2 days as we had a heavy load. One can go the whole distance from Hayesville to Norrad's camp on horseback in one day, if preferred. We arrived there Saturday afternoon, the 14th, in good shape, rested Sunday, and early Monday morning started for Little lake, 3 miles distant.

We found well trodden moose paths around the lake, but saw no moose, nor could we get any response to the horn. At noon, while we were eating lunch, a cow moose and her calf, a yearling bull, came within 50 feet, and after gazing inquiringly at us started leisurely away through the woods; this owing, no doubt, to the fact that the wind was blowing from them to us.

The remainder of that day and the next were spent in diligent search for our game, but without avail. Wednesday, the 18th, while walking through a thick wood, the doctor suddenly came on a fine bull moose, but it got out of sight before he could fire. The same day I saw a cow and a calf feeding in Twin Sister lake, about 5 miles from Little lake. The next day Mr. Ed Norrad and I went to Brown lake, 3 miles Northeast of his camp, and a little after sundown we saw a bull moose enter the lake on the opposite side from us, about half a mile away. I tried to work around to get a shot, the wind being unfavorable, but the bull took fright before I was near enough, and hurrying out of the water he disappeared in the woods.

The next morning was all that could be asked. A sharp frost during the night and not a breath of air to disturb the lake made it perfect for calling. We were early at the lake, took up our station where we had been the night before and called, but got no response. On my suggestion we went to the point where we had seen the bull enter the lake the night previous, and called. At the second call an answer came from across the lake and a few moments later his bullship entered the water and deliberately waded toward us, keeping in shoal water. That was my first good view of a bull moose in his native state. He was a magnificent specimen, with large antlers. His bell, as nearly as we could judge, was fully 18 inches long, as it dragged in the water when his body was nearly clear. We had ample time to observe all that, which we did under a glass, as it took him nearly 20 minutes to round the end of the lake. When about 300 yards distant, he turned from us toward the shore, and fearing he had our scent, as the wind had started a little in his direction, my guide advised me to fire. I took deliberate aim across a stump, behind which I was sitting, and fired. Mr. Bull stopped, turned slightly toward us and looked surprised to think that anyone should dare so rudely to break the solitude of his haunts. I tried twice more, taking careful aim each time, but he still stood unmoved. As I was shooting a 45-90, with black powder shells, the smoke was so dense I could scarcely see the moose. On the third shot I saw the bullet strike the water some distance short of the mark. I then aimed high and saw the next shot strike the water just under his body between the fore and hind legs. The magazine being empty, I hastily reloaded and got in 2 more shots before he reached the brush, but without effect. The gun had been loaned me through the kindness of Mr. William Chestnut of Fredericton, and not being familiar with its capacity we had expected too much of it. Owing to the larger caliber I had taken that gun with me in preference to my own, a 30-30 Winchester with smokeless shells. The latter gun, I became satisfied later, is of too small a caliber for moose unless one can strike a vital spot.

Had we remained at the place first selected by us in the morning the moose must have passed within 50 yards in front

of us and would have afforded a most excellent shot.

Owing to the unusually warm fall we found we were about 10 days too early for the mating season and could get no answer from the bulls, although we found numerous tracks and spoor about the lakes, especially Lake Tahoe, 5 miles from our main camp, where Mr. Ed Norrad and I went September 26th. There were 3 sharp frosts in the latter part of the month, with good effect. The evening of the 30th, we got good responses to calls, but could not get the moose near enough for a shot, although one of our party saw 2 large bulls across the lake.

The next morning, being too windy for good results, we got no answers. The following evening, however, was almost perfect. A short time before sundown, a large bull answered the horn from about a mile distant. He came from the West, tearing through the woods, making as much noise as a runaway team of horses, until within 200 yards, when he suddenly stopped and would not come nearer, despite the seductive notes of the horn and all the wiles adopted by Norrad. Much excited, I waited on the opposite side of a small barren for a sight of the moose, but the timber completely hid him from view. A few moments later we heard a deep grunt from the Northwest, followed by the rattle of horns heralding the approach of another large bull. He came steadily on to the edge of the timber 75 yards distant, but it was then too dark to see to shoot, even had he come out. Almost simultaneously with his arrival, came another from the West and one from the South, and the quartette we had near us for nearly an hour, would put to shame the famous jubilee singers.

We determined, as we could not get a shot, to get as much fun out of the affair as possible, and gradually creeping through the hardack brush until we reached a point 30 yards from the moose, where we were screened by a clump of trees, we took up our station. Norrad called and grunted alternately on the horn, which infuriated the animals so that they tore up the ground, hooked the bushes and trees and attacked one another, bellowing and snorting constantly. The heavy voiced one seemed to be monarch of them all, as we could hear him chase the others about. He finally attacked a dead pine stub, which we afterward found to be over 40 feet long and about 8 inches in diameter, with such force that it cracked, and finally, with a crash, fell to the ground. The bull celebrated the event by several bellows of triumph which we applauded. This caused them all, except the "big voice" to hasten away. He started slowly back to the ridge from which he had come, grunting in apparent disgust at each step, until the sound gradually died away in the distance.

This was a most thrilling experience, and alone worth the price of the whole trip. After stumbling along through the dark nearly an hour we reached our tent, tired and hungry. At noon the next day Mr. Jim Moone, a camp attaché, arrived, bringing me the doctor's gun, an 8 millometer Mannlicher. He told us the doctor had killed a large moose at 10 a.m. and a caribou at 5 p.m. the day before with a single shot each, and hence his full complement.

That evening we took up our stations on opposite sides of the lake, and the second call was answered by a bull coming from the ridge on the West side of the lake. As the main trail from that ridge had several branches when nearing the lake, the wisest thing seemed to go to meet him, lest he should become confused and lose his way. In a short time he made his appearance, grunting at each step, and took the trail leading nearest the lake. Being so screened by firs, it was impossible to get a good shot until he had approached within 40 yards, and then only his flank was visible between the trees. Almost simultaneously with the report of the gun, the bull pitched forward, falling on his head, but immediately sprang to his feet, facing. The next shot I fired at the middle of his forehead, striking about one inch below the base of the horns. He fell again and lay several seconds as if dead. All at once he bounded to his feet, but was still so screened by trees that again only his flank was visible. The third shot struck just 3¼ inches from the first. He fell again and to all appearances was dead. The rest of the party then came up, and on turning around after greeting them, to point out the moose we found he had got up and slipped away so quietly he had not been heard. On search, he was found standing in a fir thicket, 50 yards away, but on our approach he wheeled and started straight toward the lake. I fired my 30-30, the ball striking 4 inches below the back bone and passing the entire length of him. That seemed only to hasten his speed toward the lake, some 75 yards distant. My next shot was wild, striking his horns. He had then entered the water and he began to swim for the opposite shore. By the time we reached the edge of the lake he was 125 yards out, swimming low down, exposing only his head. The next shot was fired from the Mannlicher and broke his lower jaw. That seemed to confuse him so that he raised his neck some distance out of the water, affording a good target. I fired at this mark, the ball striking him about 8 inches back of the left ear, and coming out at the base of the right ear. That settled him, and he sank head downward in 10

feet of water, his head resting on the bottom, his hind parts just visible.

We proceeded at once to make a raft by cutting some dry pine trees and lashing them together with ropes. Mr. Norrad and Mr. Moone succeeded in towing the moose

RAFTING ON LITTLE LAKE.

near shore, when he grounded. They immediately abandoned the raft, jumped into the ice-cold water up to their arms, and hauled him near enough to attach a rope to his horns, when the 3 of us finally succeeded in hauling him near the bank. The raft was then brought alongside and by means of skids, ropes and handspikes, we landed him high and dry.

I was highly elated. Mr. Norrad, who has had much experience, said the moose was one of the largest, if not the largest, he had ever seen. Three experienced persons estimated the weight of the moose at 1800 pounds. On examination, we found that both of the shots in the flank had passed entirely through the body, and that either of them would have instantly killed or disabled any ordinary animal. The shot in the forehead had penetrated one-half inch just at the base of the horns and the bullet had crumbled as fine as shot, part of it being melted in the skull. It had not, however, gone through the skull, which at that point was over one inch thick and as hard as ivory.

Judging from what the guides tell me and by my experience I feel sure that had I depended on my 30-30 the result might have been different. While I regard the 30-30 as a hard shooter, it does not, in my opinion, carry sufficient lead to give a paralyzing shock to so large an animal as a moose, especially during the mating season, when they seem to possess abnormal vitality.

The next day I returned to the main camp, leaving the guide and 2 men to bring in the trophies. On my arrival there, mutual felicitations were exchanged between the doctor and me. I learned that he and his guide, Benniah Norrad, had seen 6 bulls and one cow 3 miles Southwest of the main camp, the same day that the doctor shot his moose. Judging from the number seen and heard during our stay and from the signs about the various lakes, there were nearly 100 moose within a radius of 8 miles from our main camp.

Mr. Norrad is well equipped with 2 good log camps and will build 2 more the coming summer. These outside camps are readily reached by good trails from the main one, from which provisions, etc., can be taken by a one horse sleigh to the outside camps. Mr. Norrad's territory is leased from the actual owners of the land, and is easily reached from Boistown. I can not speak too highly of the Norrad brothers. They are scrupulously honest, strictly temperate, industrious workers, and thoroughly qualified for their position as guides.

At the camp we left Graf von Armin, an attaché of the German legation at Washington. After a day's rest, we started on our return home, well pleased with our success.

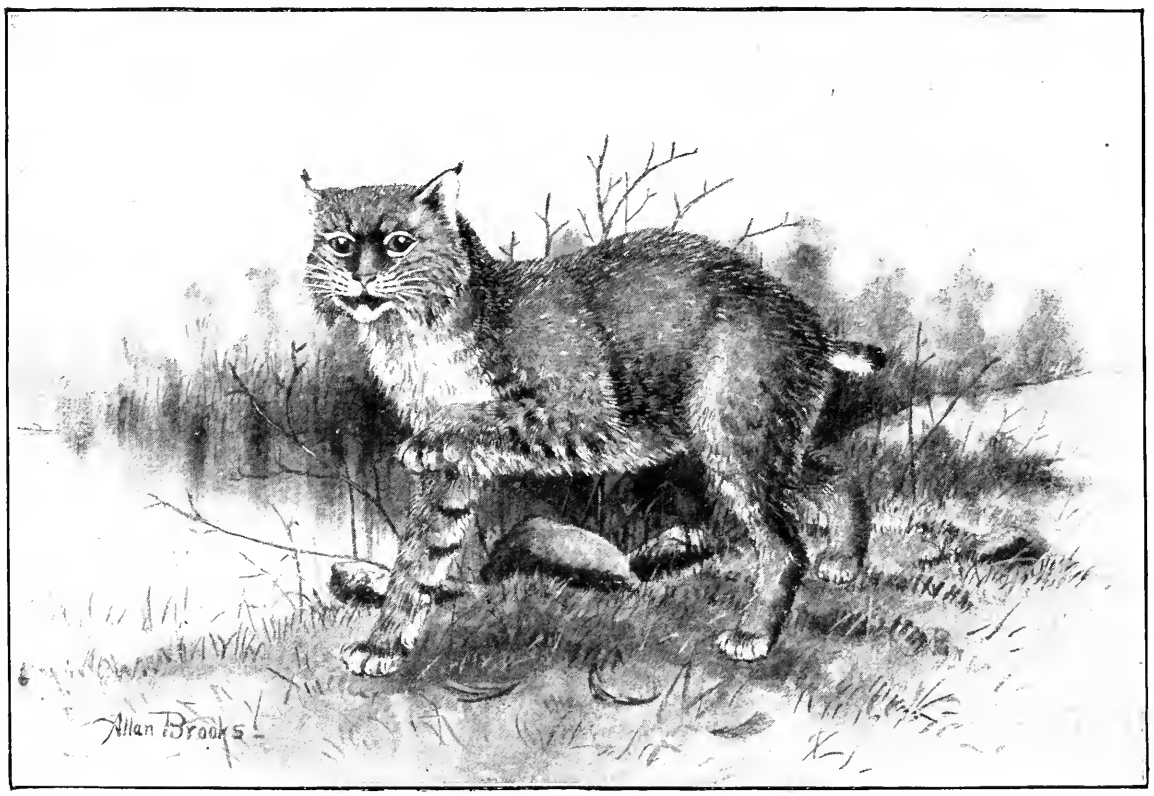
Church—I see a California man who raises Belgian hares claims to have one as large as a young cow.

Gotham—I never could believe any of those hare-raising stories.—Yonkers Statesman.

PLATEAU WILDCAT.

ALLAN BROOKS.

This handsome lynx, named in honor of the energetic assistant chief of the Biological Survey, is found from Arizona North to Southern British Columbia, but is confined to the semi-arid portions of the Rocky mountain region and West to the Eastern slopes of the Cascades. I have not heard of it farther North than Shuswap lake. It certainly does not occur in the Cariboo district to the Northward.



PLATEAU WILDCAT. *LYNX BAILEYI.*

Throughout the Northern portion of its range it frequents the brush and heavily timbered bottoms, rarely ascending into the mountains, though occasionally it can be trapped in the same localities as its larger relative, the Canada lynx. In coloration it is not unlike that animal, but always possesses the black barring of the legs and spotting of the lower parts, though in a much less degree than the other wildcats of North America. The pencils of hair on the ears are fairly well developed, reaching a length of ¾ inch.

In habits, the plateau wildcat species resembles other species, being rarely seen even in districts where it is common, doing nearly all its hunting at night, though I once observed one hunting *Spermophiles* at noon of a summer's day. This wildcat seems much easier to trap than its Pacific coast relative, *fasciatus,* and, like that animal, and all others of the same family, it will not fight when trapped. Only occasionally will one be found with enough pluck to defend itself when being dispatched.

Unlike most of the cat tribe, this species is generally excessively fat. The weight of an ordinary adult will range from 15 to 20 pounds, a large old male weighing 25 pounds. The iris is light reddish hazel, with a roundish pupil.

Mr. D. Speptic—My dear, I wish you'd prepare something occasionally to tempt my appetite.

His Wife—The idea! Why, you haven't any appetite to tempt.—Catholic Standard.

A MOOSE HUNT IN NORTHERN MAINE.

A. HEDGES.

That section of country lying in Aroostook county, bounded on the South by the Bangor & Aroostook railroad, on the East and West by the Caribou and Ashland branch of the same line, and on the North by the Ashland and Caribou wagon road, contains as many moose and deer as any section of the same size in Maine. Its leading advantages are: Its proximity to the railroad, which makes it possible to become comfortably settled in camp within 24 hours after leaving Boston; and its many waterways, making it easy to boat large game out to the settlements. Good guides can be hired at any of the railroad towns at reasonable rates. Those not wishing to rough it can obtain good board in those towns, many of which are within a few hours' tramp of excellent deer hunting, with even the chance of running across a stray moose. Grouse can be found in most localities throughout that section.

Although it is a moose country, I had failed to bring a moose to bag after 2 seasons of careful hunting. I always returned with my full quota of deer, but that failed to satisfy me. I wanted moose and nothing but a moose would or could fill the bill. If ever a country owed a fellow a moose, that one certainly did me. I had worked, tramped and paddled enough to earn at least a small one. When the time drew near for the third attempt I anxiously awaited the date set for our departure to again take up the trail. The evening of November 8 found Mert, my hunting companion, and me abroad the Bangor Express from Boston, our destination being Masardis, a small town on the Ashland Branch of the B. and A. The following noon we were met at the station by our guide, Clarence, and a drive of 5 miles took us to his comfortable house.

While getting our outfit ready for the morrow's hunt, we planned to give the country to the Eastward a careful scouring, and if that failed to show us moose or their fresh sign we were to go on to Clarence's camp at the head of Black Water brook.

We saved Clarence the trouble of calling us in the morning, and were soon ready for our hunt. In crossing the field in front of the house we saw 2 deer at the farther side, quietly eying us. They received a fusilade, with the result of breaking a fore leg of the doe. Leaving Mert to follow her, the guide and I made for a strip of burned land at the foot of Squaw Pan lake.

On entering the burn, we ran across fresh tracks of a large bull moose. By the signs we concluded he was feeding slowly, and unless frightened must be near. The wind being favorable we separated, Clarence following the track, which led along the edge of the burn, and I keeping abreast along the slope of the ridge. We had not gone far when my companion motioned me to join him. As I came up he pointed to the tracks of 3 other moose crossing the trail we were following. Again separating, we cautiously advanced as before, keeping a sharp lookout anead. In a few minutes I heard the report of the guide's rifle. I turned in time to see 3 large bulls running ahead. A fourth was standing in a clump of ash, 40 yards away, and showing by his actions that he was badly wounded. Leaving Clarence to take care of that one, I tried to get a shot at the 3 others. Just as I singled out the largest he swung to the left and made for the top of the ridge. By taking that course he brought a small thicket between us. I sprinted through the bushes and on coming out saw the moose standing broadside and looking in my direction, with only 170 yards of clear ground separating us.

There was the chance of a lifetime. I carefully brought the ivory bead to bear just back of the shoulder ar ' grasping the rifle in a still firmer hand, held my breath and fired. I saw the dust and hair fly as the bullet struck in the right place. Hastily working a cartridge into the chamber I again fired at the shoulder. That shot brought him to his knees; he faltered a second, then fell over on his side, dead.

Clarence having finished his bull now made his appearance and after a silent hand shake we compared notes. We dressed our ,rizes and returned to the house, where we found Mert, who had not succeeded in overtaking his wounded doe. We intended to haul the moose out the following morning, but a heavy fall of snow prevented our doing so until the third day. Because of the deep snow and a crust which made still hunting an impossibility we brought nothing to bag in the remainder of our 2 weeks' stay.

Some things are not what they seam; tailors, for instance.

THE MONARCH'S BATTLE CRY.

R. T. L.

A streak of soft light in the Eastern sky
Proclaimed the coming of another day;
And ere the hilltops gleamed with sunshine bright,
The birds took up again their happy lay.

Among the hills reposed a placid lake,
A little cottage on its wooded shore;
And when the sun the cabin windows kissed,
An honest hunter stood without the door.

While gazing on this pleasant, peaceful scene,
His memory took him to another place
Where, mid the city's turmoil, strife and din,
The people strove in gain's mad, wearing race.

But hark! across the waters of the lake
There comes a sound which stirs the hunter's blood!
It echoes clearly now from shore to shore,
Then dies away within the distant wood.

All rangers of the forest know that sound—
The call to battle of the forest king;
And as the hunter stands with mind intent,
He hears once more that call to combat ring!

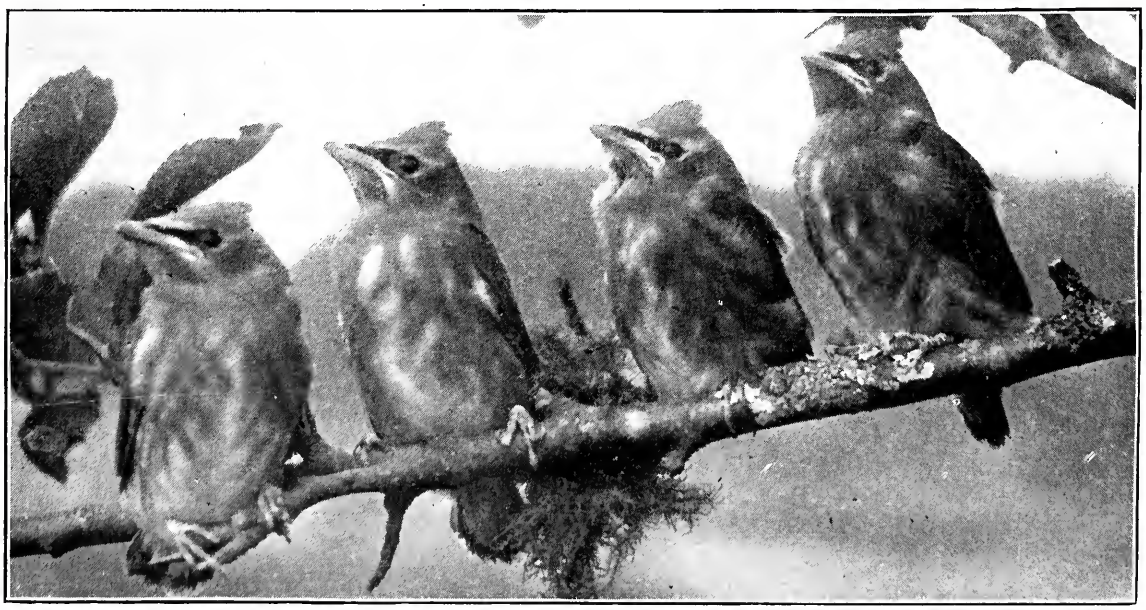
The hunter turns with eager, noiseless tread,
And steps within the little cabin door;
But soon appears, with trusty rifle grasped,
And glides along the path which skirts the shore.

He halts at last among the forest trees,
And from some birchen bark a trumpet makes.
Now quick the answering battle cry rings forth,
And o'er the rippling waves an echo wakes.

At first no answer greets his list'ning ear.
Then clear, above the sighing of the trees,
In swelling cadence comes again the sound
Across the limpid waters on the breeze.

With keen suspense, and rifle held in poise,
He waits the coming moose—that noble game
Which oft, in woodland glades in regions wild,
Has made for huntsmen long enduring fame.

With ponderous tread, and mighty head upraised,
The monarch of the woods comes into view.
The rifle cracks! The warrior's days are o'er!
He reels and falls, his valiant heart pierced through.



ATTENTION!

AMATEUR PHOTO BY E. T. WOOD.

AN ADIRONDACK LAKER.

H. R. BARNARD.

Buoy fishing for lake trout during summer in the Adirondacks seems the most successful method of taking this wary fish. Trolling is often tried, but on the whole is unsatisfactory. The guides of that section do not approve of buoy fishing. They think too many trout are taken that way, and I presume some catches have been made which warrant that feeling; but no true sportsman would carry it to excess even if he had the chance.

While camping with a small party a year ago I had occasion to try various methods of fishing, but was unsuccessful in trolling with a spinner and in drifting with a minnow. As a last resort a buoy was anchored and baited faithfully twice a day with cut-up chuts, suckers, sunfish and frogs, and not until the third day was it fished. Three trout averaging 3 pounds were taken in as many minutes, and then the fish failed to respond.

Day after day the buoy was fished and then baited and each person of our party tried his luck without success. Those 3 lakers had deluded us with a promise of good luck, but as it turned out we had to be content with bacon and flapjacks, although we occasionally caught a small brook trout.

The only thing that made me and another of the party persevere at the buoy was the fact that about every other day one or the other would have a good bite; but for some reason we were unable to hook a fish. My companion gave it up as a bad job, so I was left alone. Twice a day I was at the buoy. Early in the morning and often from 2 until 6 at night I would sit, determined to catch a laker.

One afternoon, out unusually early because of a bite the preceding day, I set 3 lines from the boat, which, I presume, some will say was a highly unsportsmanlike proceeding. In addition to this I held my rod in my hand and settled down patiently.

About 4 o'clock I had a bite on a hand line at the other end of the boat. Hastily scrambling for it, I gave a quick jerk and hooked. I began pulling in eagerly when all the lines started running out and I soon realized my fish had wound himself around all of them. Naturally, I got rattled in the general mix-up and lost my fish.

My lines were badly tangled, but I got my rod line out all right and resumed fishing. Soon another pull put my tip under water. I had this one, but he made known his intention of heading for the buoy rope. In order to check him I grasped my line and started hauling him in hand over hand. He was coming pretty fast and in my imagination I saw him lying in the bottom of the boat, his spots gleaming in the sun. He shot up into the air, unhooked himself and fell into the boat—a monster sucker with flaps on his mouth an inch wide. When I brought him in 2 of the party saw him and gave me the laugh, but we cut off his head and palmed him off on the third as a brown trout.

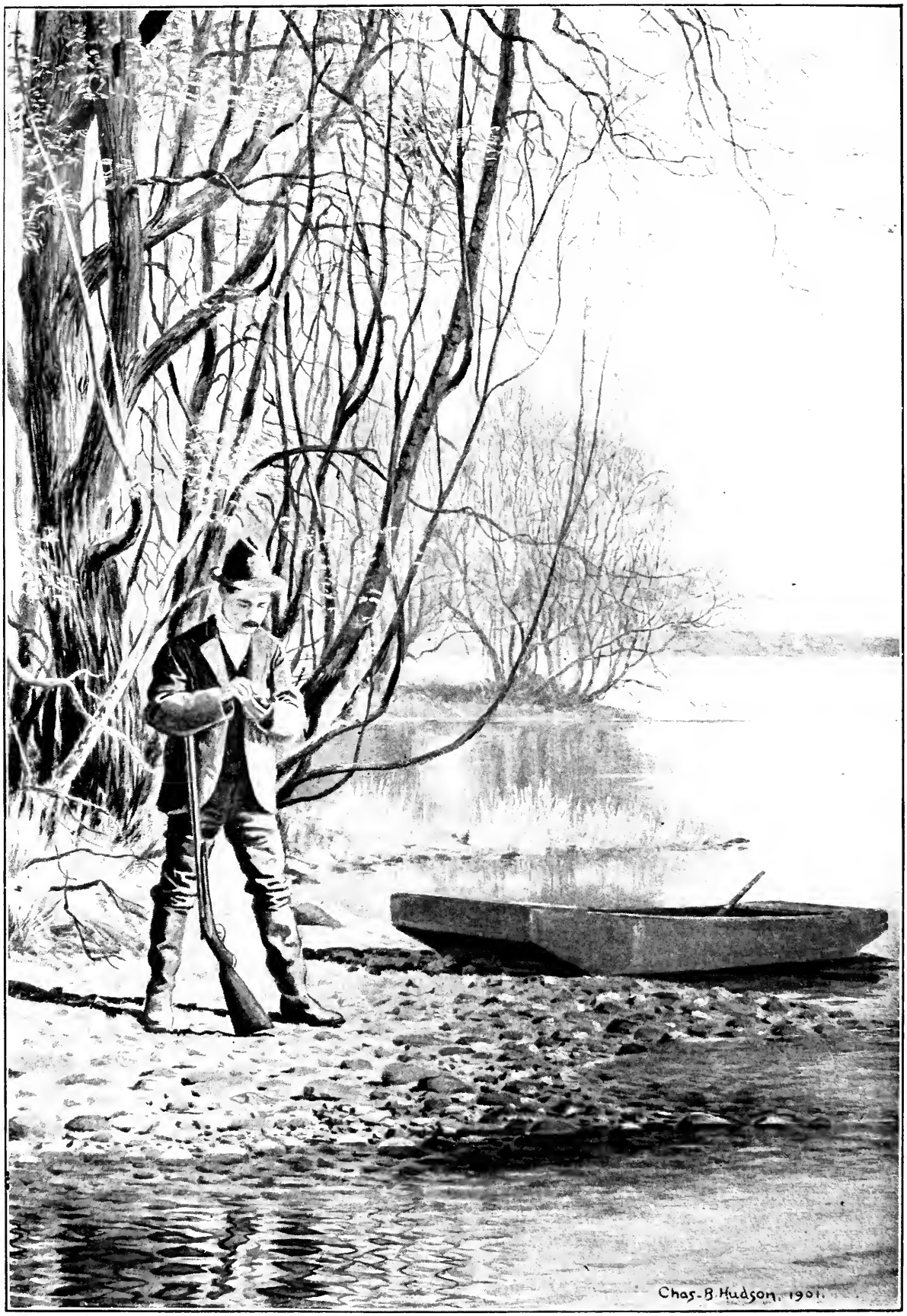
I caught several nice lakers that week, but during the last of my stay succeeded in getting one to be proud of.

Early one morning I was fishing at the buoy with my rod and an Automatic combination reel, which I got through RECREATION. In my opinion it lays over them all.

When my bait was on bottom or several inches above I had about 6 feet of line left on my reel. Hardly anticipating a bite that morning I was thinking of going in when a fish struck and carried off the slack in a flash. Being taken unawares I felt my line grow taut. My tip went under and my little finger pressed the brake just in time. Three feet was pulled from a tight spring, the boat swung around and the fish was checked. The last pull brought me to my feet and I certainly thought I had a 30-pounder.

Then ensued those glorious moments all anglers love, when the spring responds to each lunge and as quickly gathers your advantage. Back and forth I played him until my arms ached with the strain, but he was slowly losing ground. I checked hard his every lunge, knowing both rod and line were unbreakable when properly handled. At last I had the satisfaction of seeing him. From 10 feet beneath the surface he came up steadily, thoroughly played out. The strain had been too great for him. Then he lay on the surface, slowly rolling himself in the line. Carefully putting my fingers under his gills with an effort I laid him in the boat. As it proved later he weighed 10 pounds. I soon put him out of his misery by breaking his neck, let out a whoop and pulled anchor.

"Do you believe in heredity?"
"Certainly; I know a barber who has 3 little shavers."—Exchange.



THE LITTLE SINGER'S TRAGIC DEATH.

A TINY TRAGEDY.

L. C. REMSON.

The first faint light of early dawn was stealing through the tree tops which fringed the Eastern horizon as I arranged myself behind an apology for a blind, which consisted of a few sticks of drift-wood and some willow bushes. Ducks were not plentiful in those waters, but during April there were occasional flocks passing from lake to lake and, as several had been seen within the preceding few days, I decided to try my luck with them that morning. The place where I sat commanded the connecting channel between 2 portions of a lake. It was the best obtainable position, for the birds in flying up or down the lake invariably passed through this narrow space, which was bordered by alder bushes and willows. From this point I could reach any bird passing between me and the opposite shore.

Nature gradually awakened about me at the kiss of the rising sun. A flock of blackbirds called cheerily as they passed Northward, their glossy plumage covered with a metallic sheen by the glancing rays of light. A muskrat stole from its lair and swam boldly around the corner among the willow sprouts. Hardly a breath of air was stirring, and there was just enough motion of the water to cause a gentle but constant lap, lap, against the stony bank.

An hour passed and not a duck. I leaned over the blind and peeped down the full length of the wooded shore. Ah! What is that? Mere black specks, one, 2, 3, 5 of them, headed my way. I braced my feet firmly against a stone and broke off a twig which had been scratching my cheek. Still they came, steady as clockwork, stretched in a perfect line, the leader well in advance. My gun was opened nervously and the shells examined. All right; 3¼ drams of powder and 1⅛ ounces of No. 4 shot. They were black ducks and coming directly up the channel. The tip of my gun covered the leader and was quickly advanced, straight on a line with his neck and 3 feet ahead of him.

Bang!—Bang!—

The first falls. Hurrah! The second shot also took effect and the bird last in the line flopped helplessly on its side in the water. Another double and they were going like the wind, too. One dropped without a struggle.

As I pushed the old scow from beneath the bushes the 3 remaining ducks were just disappearing in the blue distance far up the lake. I picked up the birds and paddled back to the blind well satisfied with myself and my little Syracuse gun. Quiet reigned once more. The only remaining signs of the exciting moments just past were the birds lying at my side and a faint odor of burnt powder which lingered around my gun.

Directly opposite me on the other shore a clump of pussy willows nodded to and fro, and as I sat watching the stretch of blue water, first to the North and then to the South, I was suddenly attracted toward those willows by an exquisite burst of melody. On the very topmost branch a little song sparrow was perched, his head held back, and his whole strength thrown into the rendering of the song, so small in itself and yet so clear and sweet that I fell quite in love with the sober-colored little singer and became so deeply engrossed in watching him that I was completely taken by surprise when 2 more black ducks swept into view nearly opposite the blind. With a jerk my gun came to my shoulder, but as the report awakened the echoes I saw that in following the ducks my gun had been brought to bear on the pussy willows, and my friend had fallen from sight. The ducks were gone, but 2 or 3 tiny feathers floated up from the willows, telling of the tragedy of the little singer's death.

I paddled the old scow out again, crossed the channel, and after a short search found him lying still, his bill opened, and drops of blood trickling out, as though he had died in the midst of a song. One shot had struck him in the side. The very stillness seemed sad as I again took my seat behind the blind, wrapped the sparrow carefully in my handkerchief and put him in my hunting coat.

A duck was coming, a solitary old fellow, and he looked as big as a goose. I was ready that time and waited patiently until he came opposite.

Bang! Bang!

He was hit hard, but up, up, he flew, 50, 100, yes, 200, feet, and then his strength gave away. Those untiring wings, which had carried him back and forth from the cool waters of New England to the sunny rivers of the South, could soar no farther; his head drooped and straight into the lake he fell, dead. He was marked and colored beautifully and as I held him up with the others I felt well paid for the time spent in the blind; though sad at the thought of the little fellow in my pocket.

I trudged across the hills toward home with a growing appetite for dinner and a keen appreciation of the possibilities of obtaining a good one from my game bag.

As I sit at my desk writing and look up at the mallard drake and the little sparrow beside him in the cabinet, the vision of that spring morning comes before me, and again I see the quiet lake, the nodding willows and wooded hills; but above all there floats a clear, sweet song, now hushed in the sadness of a little tragedy.

THE SICK MAN'S REQUEST.

A. L. VERMILYA.

Take me back toward the sunset, to the mountains of the West,
Where all nature, sweetly smiling, breathes of quietude and rest.
Let me see again the foothills, let me hear the coyote call,
When the Western day is dying and the shades of evening fall.

For the city's clamor hurts me, and the thick air of the street
Sweeping in my open window chokes me with its dust and heat:
And I think and dream of summers in the days of long ago,
Till my heart is torn with longing for the scenes I used to know.

Then I see a line of wagons crawling slowly o'er the plain,
Hear the shouting of the drivers, hear the maidens' songs again;
And the camp beside the river, when the sun was going down,
Wakens fond and pleasant mem'ries long forgotten in the town.

Slow the journey o'er the prairie, with the hot sun overhead,
Still toward the land of promise hour by hour the pathway led;
Every day fresh wonders opened, every mile brought something new,
And our weariness quick vanished when the mountains came in view.

Take me back toward the sunset, to the mountains of the West,
Where all nature, sweetly smiling, breathes of quietude and rest.
Let me see again the foothills, let me hear the coyote call,
When the western day is dying and the shades of evening fall.

"Beg pardon," said the long haired visitor, "but is there a literary club around here anywhere?"

"Yes," replied the editor, significantly, as he reached under his desk. "Are you a literary man?"—Catholic Standard.

SOME HUNTING DAYS.

HOWARD CARL.

The deer hunting season would open August 1st and as peaches would not be ripe until about the 7th there would be a week in which I could hunt, so I determined to spend the time in that way.

I lived about 3 miles from the hunting ground, which necessitated my getting up at 3 a.m. in order to be there by daylight. I had been out several times without seeing game of any kind, or even a track, when one morning as I came up over the top of a ridge, I saw a coyote trotting along in the trail about 100 yards away.

I whistled as I threw the gun to my shoulder, and as the brute stopped I pulled the trigger. I miscalculated a little and the bullet struck just in front of him. I threw in another cartridge and fired for a point where the trail entered the head of the canyon. The bullet and the coyote got there about the same time, and by the dust that was raised I thought I had him; but no, I soon saw him making tracks far down the canyon.

In a big brush patch at the bottom of the ridge I shot the heads off 2 bush rabbits and went home. I was thoroughly disgusted with deer hunting and gave it up a while.

It was September 20th before the last of the peaches and prunes were gathered. There were still 10 days of open season left, so one morning I picked up my 32-20 rifle, and with a lunch in my pocket started out. I had determined to make a day of it that time, hunt in a new country, and hunt until I found tracks at least.

The sun was well up when I got to the top of the ridge. As I was walking slowly along I heard a rustling in the leaves, and at the end of a patch of sage brush, I saw another coyote trotting up the trail. I held just ahead of him and fired, but did not know anything about a sharp turn in the trail around a big rock. The bullet went singing off the rock, and the coyote wheeled like a flash and ran.

He went through a little clump of timber and came out about 75 yards below me, broadside on. He had not seen me at all. Pop! Pop! Pop! went the little 32 and the coyote again disappeared around a friendly curve. I had gauged his speed well, as every shot went directly over his back, but I had not held low enough.

I had not gone far after my adventure with the coyote before I saw a few deer tracks. I followed the trail, which led me down into the canyon and up the opposite ridge. I had climbed about half way up, when I saw, on the ridge I had just left, 4 deer. Hoping to get near them I crawled into a small gulch, and down that to the big canyon, taking care to keep the deer between me and the wind. Then I began the ascent of the ridge.

I got where I thought the deer ought to be, but could not see them until one saw me. He made a few jumps and stopped to look. I aimed just back of the shoulder and fired. As he started to run I saw his tail flop and I knew I had hit. I fired again and he jumped into the brush and disappeared. I heard a great rustling in the brush and hurried around the end to catch the other deer as they came out. They did not come, so I went back through the cover.

I had not gone far before I saw a deer in a little clear place about 75 yards away. I immediately fired and he started to run. I saw he would give me a chance for another shot as he passed through a small, clear place and I covered the opening. As he appeared I fired and down he went.

I went back into the brush to see if I had killed the first one I shot at. As I did not find him I returned and dressed my deer.

After doing that I concluded I would have a drink before starting home, and as I was going through the brush again I found deer number one in a heap by the side of a log.

That was more than I had bargained for. Talk about Friday being an unlucky day and 13 an unlucky number! That was Friday and I had left home with just 13 cartridges.

I dressed the deer and carried it where the other one was. They were both yearlings and weighed about 75 pounds apiece. I put one over each shoulder and started, but I soon found that would not work, so I hung one deer in a tree and toted the other. As I had to carry him down one ridge and over another I was almost exhausted when I got him where I could reach him with the buggy.

I did not want to leave the other deer, nor did I want to go after him alone, so I went to town that evening and related my story to a friend. He immediately picked up his gun, climbed into the buggy and went home with me. We were out by 3 a.m. and by daylight were on the ridge. As I had had plenty of shooting I let my friend go ahead. When we reached a point about 600 yards from where I had

hung my deer we saw a big buck about 200 yards away. Bert fired, but shot too high, and the buck never moved; another quick shot, which fell short, and our buck left for parts unknown.

The following week I went out several times, seeing fresh tracks, but no deer. I determined to quit hunting for the season, but one morning a neighbor, Frank C——, came with a buggy to take me hunting. I did not like to disappoint him, so I went with him. It was after sunrise when we drove into the mouth of the canyon where we intended to hunt. Agreeing to meet at a certain place, we unhitched the horse and started, Frank taking one side of the canyon and I the other. I soon saw tracks and followed them until I found they were taking me high on the ridge and away from the place where we were to meet, so I struck around through the timber on the side of the ridge. I finally got near the place where we were to meet, but the point was so steep I could not get down. After spending some time looking across the canyon, in the hope of seeing Frank, I decided to go back to where I had left the tracks.

As I was going slowly along, a spike buck jumped up in a patch of sage brush. I could just see his head and the top of his back. I fired quickly and overshot him. He jumped over the top of the brush, but as he did so I fired again and knew I hit him that time.

He ran into a small ravine full of brush, which led into a large brush patch. I stood a few minutes, thinking he or another deer might start over the top of the ridge, but as none appeared I went into the brush where I had seen the deer disappear. Not finding him I waited some time on the hillside and finally saw my buck going out at the lower end. Pop! pop! pop! and he stopped.

When I cut his throat hardly a drop of blood flowed, but when I dressed him I found him full of blood inside. My second bullet had entered back of the ribs, ranged forward, broken 2 ribs on the other side and passed out. Of the other 3 shots, 2 had taken effect; one on each side of the back bone on the top of the rump. I packed him down to the buggy and waited for Frank, who soon came along.

He had seen a deer but it was nearly 700 yards away, and by the time he got around there the animal had gone.

There were a few more days of open season left, but as I had killed the limit I did not go out again. I have the big buck listed for next year, but I want to try him with something that has more shocking power than a 32-20; a Savage will do.

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THE ONLY MUSK-OX IN CAPTIVITY.

ADIRONDACK GUIDES.

THOMAS G. KING.

To one familiar with the guides and hunters of the West the famous Adirondack guides are both a surprise and a disappointment. Last summer I wandered about the Adirondack woods and lakes from July until November and made the guides a study.

These men became famous through the writings of prominent *litterateurs* who have visited the North Woods. A person may be eminent in the professional world without being able to distinguish between good guides and poor ones. The transition from the routine of city life to the freedom and pleasures of the wilderness is delightful, to say the least; and those who experience that change are too apt to lavish on man the thanks due to nature. Such books as "Little Rivers," "Camping in the Adirondacks" and "Brown Studies," are but a few of the delightful and charming volumes which have been written about camp life in the picturesque Saranac, Tupper, Placid or Ampersand regions. Those books have exalted the guides, and, it seems to me, unjustly so, because only a few of the older woodsmen are of the types described in them. The fishermen and camp laborers who hang about Adirondack hotels and villages fall far below the ideal ascribed to them in books.

Unquestionably, camp life to day is totally different from that of 20 years ago. Then the tourist came with his fishing and hunting outfit and was met by the same guide who had served him for years. Contrast a season now in the Adirondacks with the good old time to which I refer. A city man coming here to spend a few weeks or a month, must bring 5 or 6 trunks. The social gaieties in which he must participate are, of course, not on so large a scale as those of the city. Nevertheless, either he or the members of his family must attend parties and receptions, be well posted in golf and tennis and, incidentally, take an interest in amateur theatricals. Occasionally, he may vary the monotony by taking a short row on the lake. The guides of the leading hotels receive $4 a day just as they used to 20 years ago, but they have practically nothing to do. If the visitor decides to go on the lake, he starts at 9 or 10 a. m. and returns for dinner. Even if he takes a lunch with him, he is back by 3 or 4 in the afternoon. Not only does he pay the guide's wages, but when he leaves the hotel he gives the guide a tip according to the dimensions of his pocketbook or his generosity. As a natural result, the guides are spoiled. As no one wants to visit the real wilderness and forego the luxury and social pleasures of the hotels, so the guides of to-day know only the lakes, rivers and short carries over well traveled roads from one hotel to another. Outside of these beaten paths they know nothing.

This is well enough for those who would rather play golf than catch trout or shoot deer; but I contend this does not warrant the application of the term guide to men who are really camp laborers. These men would starve if called on to do guiding in the Rocky mountains.

Upper and Lower Saranac lakes are surrounded by camps, some of which cost upwards of $100,000. Scarcely one cost less than $10,000. The guides procure supplies from the lake steamer or at the railroad station, take care of the children, go for the mail and do menial services. Years ago it was common for a party of guides and sportsmen to make the trip to Plattsburgh down the Saranac river, a distance of nearly 100 miles. From Lower Saranac to the head waters of the Hudson, or through the Fulton Chain, or North to the St. Lawrence were also favorite excursions. One or 2 trips to Fulton Chain were made last year, but no one went down the Saranac.

Amusing stories of the greed and incompetence of some guides are told by the old timers who winter in Saranac village.

A wealthy woman living at a hotel on Upper Saranac desired to buy a coach horse to use in Boston. Why she voiced her desire in the presence of 2 or 3 guides, and what led her to think she could find blooded stock in the woods, passes my comprehension. Two of the guides went to Saranac village and bought an ordinary plug for $40. They put in 2 or 3 days brushing and polishing his coat, gave him certain stimulants and led him to the hotel. The woman paid them $175 for the rejuvenated skate.

There are but few angle worms procurable on Upper Saranac. The crew of the little steamboat employ a boy at the South end of the lake to dig bait as required. They pay him 10 cents a can. Mr. Blank, of Washington, is a wealthy man. He has a number of children and occasionally they amuse themselves by catching perch from the hotel dock. He told a guide to keep the youngsters supplied with bait. Two months later a bill was handed him for 20 cans of worms at 50 cents a can. "Great Scott," said he, "I made my money

by hard work, and when a boy I would have been glad to get 5 cents a can for worms. It seems to me the price has gone up."

"Yes," replied the guide, who had a reputation for wit; "the price has gone up but the worms have gone down."

I have even heard of guides selling deer which their employers had shot. An old timer living near Bloomingdale told me a story bearing on this subject. He was employed by a New Yorker to go deer hunting. They were out several times, but saw no game. Finally, the sportsman succeeded in shooting a good sized buck through the stomach. Of course, the deer ran and left but a small trail of blood. The guide told his employer it would not be best to follow the deer; if left alone, it would probably die and they could get it in the morning, whereas if followed it might run miles. The man had had previous experience with guides, and said:

"Oh, no you don't. Not on your life! If I don't trail that deer to-night you will get him and sell him before I come in the morning."

The guide raged; at first to no purpose. Finally he prevailed on the man to trust him. They returned to Bloomingdale, and spent the night. In the morning they visited the scene of the shooting and found the buck, dead. The sportsman made an apology; but he afterward said he would have wagered that the deer would not be there.

AMATEUR PHOTO BY W. J. TOPLEY.

THE OLD HOMESTEAD.

Made with Bausch & Lomb Plastigmat Lens.

SALMON FISHING ON CHARLESTON LAKE.

E. A. GEIGER.

One of the most picturesque lakes in Canada is Charleston lake, 17 miles from the imaginary line dividing New York State from the Province of Ontario, at Brockville. Mr. B. Loverin, the genial owner of the houseboat Lah-ne-o-tah, and a member of the Reporter Hunt club, promised the club a good time with the salmon* as soon as the ice went out, and accordingly April 28 was appointed for the members to meet at the houseboat. Five of us left Brockville at 3.30 p.m., by the Brockville & Westport Railway, and reached the lake at 5.30. There we were met by our host, who gave us a hearty welcome and announced everything in readiness for the salmon.

In the morning lots were drawn for positions in the boats. Mine fell to the boat with Byron Loverein, a son of our host, and a member of our club, and my brother Adolph, while the other boat held Messrs. Charles Stagg, Leonard Cossitt and George Beecher. We got an early start and soon had 4 lines in the water. We were not out of sight of the houseboat when a shout from the other boat announced the first strike. These salmon never give up until landed, and after a good fight the anglers brought in a beautiful 8-pounder. Hardly had they landed their fish when my brotner got strike and reeled in a 6-pound salmon. Getting among the islands, of which there are 123 in the lake, we lost sight of the other boat until noon, when we returned to the houseboat and found our friends already in, with 5 splendid salmon while we had but 3. These salmon weighed 3 to 9 pounds each.

After noon we again started out, in different directions, but as the wind had increased, and was blowing from the South, causing quite a sea, it was difficult to keep out in the open water. We kept closer to the shores and did not have as good luck as in the morning, getting only one salmon each, of about 5 pounds. On our return Charlie Stagg related an experience they had with black bass. While fishing among the islands they ran into a school of these fish and as fast as they could put out their lines 8 small mouth black bass were hooked, none weighing less than 4 pounds. As this was in the close season the bass were carefully returned to the water; still it gave us an inkling of what sport we might expect with the bass after June 15.

The next day the wind continued strong. Byron Loverin decided to remain in camp and repair some of the havoc the storm of the week before had wrought on his floating boathouse, and my brother elected to remain with him, so we had but 2 men in each boat. Just as we were ready to leave the houseboat Messrs. Ross and Osborn, of Brockville, rowed up and exhibited a fine 11-pound salmon they had landed off the high rocks a few minutes before. We had hardly passed the first point of land, Derbyshire Point, when we hooked and landed a 5-pounder. We soon lost sight of the other boat and decided to go Southeast, under the high bluff shore, to be somewhat protected from the wind, and to remain until late in the afternoon. At 12 o'clock we landed at a cold spring, ate our lunch, then climbed the high cliffs on Crawford's Point, at the mouth of Leeder's creek, where we had an excellent view of the lake for miles in all directions. On our return we had 3 and the others 4 salmon.

After supper we strolled over to Cedar Park, to arrange for a rig to take us to the station in the morning. While we were there Mr. R. B. Reading, of Lambertville, N. J., came in with 6 salmon weighing respectively 3½, 4, 8½, 9, 11 and 12 pounds. The crowning event of the day was when Mr. Osborn came in with a salmon tipping the scales at exactly 14 pounds. These are not extraordinary catches for Charleston lake, as the weather was not favorable, either day. The limit according to our fish and game laws is 5 salmon per rod per day, and none of the boats reached their limit.

It is impossible to describe the beauties of Charleston lake. It is about 8 miles in length and one-half mile to 6½ miles in width. There are few shoals and no marshes. The water runs to 300 feet in depth, and is exceedingly clear, being fed by many springs. The lake contains 123 islands, on many of which are fine summer cottages owned by Americans and Canadians. The shores vary from grassy slopes to high rocky bluffs rising almost perpendicularly 50 to 200 feet. There is first class hotel accommodation, and there are plenty of good guides or oarsmen to look after visiting sportsmen.

*The mentioned fish is probably Atlantic salmon, *Salmo solar*.—EDITOR.

AMATEUR PHOTO BY ANDREW EMERINE, JR.

A REAL FISH STORY.

Highly commended in RECREATION'S Sixth Annual Photo Competition.

AMATEUR PHOTO BY J. E. TYLOR.

THEY FOUGHT TO A FINISH.

Made with Manhattan Camera.

A BEAR AND A BATH.

W. H. WRIGHT.

The story of a buffalo hunt in RECREATION reminds me, in some ways, of a hunt I had at one time which resulted in the death of my first grizzly. Not that I had anything but the bear to fight, as the major did, but I had to take to a stream for safe keeping until the excitement blew over.

For several years I had hunted and killed deer and black bear, with such success that I was anxious to try my hand at something larger, and one summer I fixed up a trip for the hills with that object in view. For some weeks I camped around through the hills looking for something that would suit my taste, until I had spent most of the summer, had traveled the Bitter Roots from West to East and had started on the home stretch. I then thought if I could not get a grizzly, I would at least have an elk; so I switched from the part of the country I was in, followed a long ridge running West, and at last made camp in a bottom beside a large stream, which ran swift and cold from the snow banks in the mountains to the North and East. At the point of a long open ridge coming in from the North and West, were 15 or 20 acres of open bottom, and on the river bank was a spring all cut and dug out by deer and elk that used it as a lick. I made up my mind to get an elk there. Around the spring and along the river bank grew small brush, 3 or more feet high, and lying in this brush, 50 or 75 feet from the spring, was an old log. There was no standing tree of any size within a quarter of a mile of the spring, so I selected a position behind the log. I went to the spring early, grubbed out some of the brush with my knife, fixed up a comfortable place to sit or lie, and made everything ready for the killing. The gun I was using was an old model 44 Winchester, with which I had had some trouble in other hunts, but I could put the slugs where I wished them when it did work, so I kept hanging on to the old thing. The extractor had become so badly worn that I always had to put my thumb on it and bear down to bring the shell out. Sometimes when I was on the verge of the ague, I forgot to do that, and then I had trouble. The extractor not only failed to throw out the shell, but it brought up another cartridge, and as there was no place for it the old gun was useless for the time being.

The river bank along through the bottom was 3 or 4 feet high, and the water had washed away the loose earth for some distance underneath the bushes along the bank, leaving the roots hanging down into the water. It was a warm day in September, and I left camp without any coat, thinking it would be warm enough until I should get my elk, or as late as I could see to shoot. I did not know much about game using licks then, or I should have known that they do not go to licks every day at that time of year. I have found out all these things now, and know enough to take a coat with me when I go to watch for game.

I commenced the watch, and until the sun got low I was not uncomfortable. Later I became chilly and soon my teeth began to chatter. I looked at my watch and gave that elk just 5 minutes more to show up. It was nearly sundown, and I was getting to a point where I would not stop much longer for all the elk in the country. I raised up to take one more look at that point of the ridge where the main trail led to the spring. After looking the hill all over I could see nothing, and was feeling blue, when on glancing up stream and to my right I saw an old grizzly coming around the point of brush 125 yards away. My teeth quit chattering at once. I dropped down behind the log, as the bear was coming my way and I wanted him close before I opened up on him. He was my first grizzly. After allowing him what seemed a long time to get to the spring, and as I could not hear anything of him, I raised my head and peeped over the brush. He had evidently been stopping to think matters over, for just as I looked he dropped his head and started my way again. He was within 75 yards and I thought he could not get away from me, as I could get in several shots before he could get out of reach; so rising, I aimed to put a slug between his neck and the point of his shoulder.

At the crack of the gun that old bear made one bound into the air, gave a bawl like that of an overgrown calf, and started at a lively gait for my bunch of brush. I had not figured on that. However, I did not feel disappointed for it would give me time for more shots, and I could see that the grizzly hide would be mine. Bringing the lever forward for another cartridge I yanked it back, and lo! I had forgotten to thumb the cussed thing! There I was, with not a tree in sight, with a useless gun in my hand and a wounded grizzly coming my way! I did not feel so anxious just then for him to get up close so I would

be sure of him. It looked as if other hide than the bear's would be decorating landscapes.

I looked the situation over, threw the gun, and made for the river. In about 2 jumps I went over the bank. As I struck the water I saw where it had washed out the soil. Catching a root I drew myself close under the bank and waited for the bear to come in after me, thinking when he jumped he would not see me. That would give me a chance to get out and recover my gun and possibly reach a tree. Gee, whiz! The water was cold. I had to lie down in order to keep under the bank; and I was nearly frozen before I took to the water. I had to hang to the roots to keep from washing down stream. The water made such a noise that I could not hear the bear and I did not dare look up for fear he was watching for me. There was nothing to do but wait for something to happen.

After what seemed half an hour, but which, I suppose, was about 2 minutes, I tried to crawl up stream a short distance, and then look to see what had become of Mr. Bear. The water made so much noise against my neck, that I thought the bear would be sure to hear me, so I gave up that idea and commenced to back down stream. That worked better, as going with the current I made no noise. When 30 or 40 yards down stream, I raised up part way, and worked some of the ice water out of my clothes. Then I crawled out into the brush and listened for the bear; but not hearing anything, I proceeded to scrape out some more water. Then I quietly raised up so I could look over the brush but could see nothing of bruin, so I crawled along toward the log, where I had left my gun. I have made many sneaks for game, but never with more forethought than I made that one. I reached the log and scarcely dared breathe for about 5 minutes. Then I began to look for my gun and in my haste to give the bear all the land there was between him and the river I had thrown it on the opposite side of the log!

I raised up on my knees, and as the bear did not charge me, I screwed up my courage and stood up. There lay that blooming grizzly, within 30 feet of the log, dead! I had taken my bath for nothing, but I wasted no regrets, for I think the situation would have induced almost anyone to take a bath, even if the ice had to be broken to do it.

I told the fellow at camp that in crossing the river I fell in. As camp was on the opposite side of the river from the lick, I got off without his knowing I had been mixed up in any way. Besides, I told him that grizzlies were as easy to kill as black bears; that it only took one shot to kill this one. That was my last hunt with the old gun which had long outlived its usefulness. I bought a new Winchester as soon as possible.

TO A MIGRATORY FOWL.

A. D. NICHOLS.

High in the ethereal dome of darkest night,
While quiet earth is wrapped in pleasant dreams,
You take your steady, swift, instinctive flight
Toward the Southland's vales and reedy streams.

Pursued by blizzards from the Northland's peaks,
By spectres of a coast ice-bound and drear—
Before you, sunny fields and singing creeks,
And rest upon the water still and clear.

Blest fowl! when life with sorrows is beset,
Oh that we mortals, too, could wing our way
To lands of peace and rest, and there forget
The sorrows of our cheerless Northern day.

HUNTING QUAILS AND FINDING COONS.

E. M. DORSEY.

Various coon stories in recent numbers of RECREATION have recalled vividly to my mind an experience in Boone county, Missouri, in 1872.

Our party left the farmhouse, where we had been quartered over night that we might be early on the shooting ground, at 4 o'clock one November morning. We were equipped with shot guns, several pointers and setters followed us, and we purposed shooting quails if we could find any.

Before going far we discovered that our force had been augmented by a volunteer in the shape of a venerable and sleepy looking long eared hound of giant frame. His name, as we learned later, was Sing, and he was the dearest possession and constant companion of the youngest scion of the household we had just left. We wasted much good argument in trying to convince Sing that *a* hound could but be *de trop* in the company of bird dogs and bird hunters. A resort to sticks and stones proved equally futile. We must have succeeded, however, in wounding Sing's pride, and he evidently decided to show us that he was worth a whole bunch of bird dogs.

He dashed off into the brush and before we had fairly resumed our march, was heard giving tongue in lively fashion. Apparently he had treed something. Then the crowd, of course, had to go to see what that old fool dog had found.

At the scene of action, Sing was doing stunts around an old dead oak. The tree was about 5 feet in diameter. At 30 feet from the ground it parted into 3 great limbs, all broken off at 10 or 15 feet from the trunk. One of the party insisted he had seen, as we came up, a coon go into the end of one of those branches. It was so dark at the time that we inclined to question the statement. That made trouble. The offended individual swore he would not go another step until his veracity had been demonstrated. Finally one of the boys was sent to the farmhouse for axes. All the while old Sing was dancing about the tree like a crazy Indian, yelping incessantly.

When the messenger returned, with him came the old man of the farm and his 2 sons, tall, spare, longlegged chaps, each toting an ax. After a good look at the tree, the farmer struck his ax into a log, sat down beside it and drawled

"We-e-ll, Sing sez ther's coons up thar, an' I'll bet my Sunday clothes thar is, but I don't feel no call to tackle that air dry snag. I ain't lookin' fer hard labor."

The deadlock was broken by Rube, the proud owner of Sing, who discovered a tall young red oak a few yards higher up the hill. Instantly he formed a plan of attack. The young tree was felled, and dropped into the forks of the snag. Then Rube peeled off his jacket and shinned up the red oak of the dead tree. The first branch he examined was solid to the core. On reaching the end of the second he gave a whoop of triumph.

"Ther's a hole here big enough to hold a carload o' coons," he cried: "But they're 'way down an' we'll have to smoke 'em out.

Close examination revealed a thin place in the trunk, near the ground. A few blows with an ax opened it up, and a smudge fire was started in the hole.

Rube mounted to the top of the branch and hung there, one foot resting on a knot and one leg hooked over the limb. Every little while he would draw himself up, look down the hole and yell, "More fire! More fire!"

It was then broad light, and all eyes were, of course, fixed on Rube and his performances. Presently 2 heads appeared simultaneously above the hole in the branch, Rube's and a coon's. As the latter braced himself for a saving rush, Rube dropped back, hanging by his legs and left arm. The coon emerged, snarling defiance, and instantly received amidship an upper cut from Rube's right fist, that sent the poor beast flying into the air. Rube had on a great dirt-colored felt hat with a wide, drooping brim. Before the poor coon had fairly started on his flight groundward, Rube had clapped that hat over the hole in the limb and was yelling:

"Thar he comes! Go fer him, Sing, go fer him! Sing's got him! Sing's got him! Far'well. Mr. Coon!"

Sing despatched the coon even as his master spoke, and looking upward, howled for more. Look out below!" cried Rube, lifting his hat from the hole as one would raise the lid of a teapot. Out boiled another coon, received a body blow and sped swiftly to Sing's welcoming jaws. Again Rube on his airy perch chanted the death song.

"Sing's got him! Sing's got him! Far'well, Mr. Coon!"

This performance continued until 5 coons had been despatched by the wireless method to Sing's mouth, and thence to their long home. That exhausted the population of the hole, and though Sing velped his desire for further employment, his work and his master's song of victory came to an end.

The crowd enjoyed the affair immensely, and vowed it knocked quail shooting silly. Thereafter they often called on Rube and Sing to furnish sport. They did not require them to give bonds for faithful performance of contract, either.

DEER HUNTING IN ARKANSAS.

F. M. HOUDLETTE.

In a hotel in Arkansas I chanced to meet 5 hunters who were lamenting their inability to find game in quantity to suit them. I offered to supply a camp outfit and take them to ground where I could show them 3 deer a day for a month. If I failed to do so, I agreed to pay the expenses of the trip; but if game was as plentiful as I said, they were to pay all expenses and give me $50 for my services. The bargain was soon made. I telegraphed Tom, my partner, to meet me on the down train the next morning. Then I got my things ready and had them taken to the station.

In the morning we all boarded the train with a wagonload of duffle and my favorite dogs, Dynamite and Stranger. At 4 p.m. we were set down at Walnut Lake, Arkansas, and hired a wagon and span of mules with which to complete our journey. We drove 15 miles that night and pitched a temporary camp. A little before daylight, Tom and I got breakfast and awoke our boarders. By sunrise we were again on the road, and it was late in the evening when we reached our hunting ground.

Tom and I spent the next day in preparing our camp for the winter, as he and I, at least, were billed to stay until spring. Our boarders went out early. About noon they returned, tired to death. They said they had not seen a thing, not even a squirrel. They had, of course, moved so fast and so noisily that everything ahead of them had been driven to cover. I tried to tell them this, but they would not listen, and even hinted that they thought all the game of the region was in my eye.

Finally I said I could go out at 4 p.m., kill game enough to last us a month and be back in camp by dark. They jeered at this; and to convince them, I started out, with Dynamite at my heels, I went South toward Bear lake, purposing to hunt in the switch cane around it. When I had gone about a mile I noticed fresh sign and stopped to watch. Signaling Dynamite to lie down, I walked 50 yards from him and stationed myself beside a large tree.

In a few minutes I saw 3 does and a 6-point buck feeding about 300 yards away. The wind was favorable and I determined to stalk those deer. As most deer hunters know, when a deer is feeding he will never raise his head without first shaking his tail; nor will he lower his head without another flirt of his appendage. Before the buck looked up I had moved 4 steps and put a big tree between us. In that way, watching my chance when the buck's head was down, I got 100 yards nearer. The rest of the distance was over open ground, yet by careful crawling I gained another 100 yards. Then lying flat, I got my Savage to my shoulder and put a bullet through the buck's heart.

The does ran a few yards and stopped; 2 side by side and broadside to me. I had been told that a Savage would shoot through almost anything. I took careful aim at the 2 does and fired. Then, without waiting to see the effect of my shot, I fired again at the third doe and dropped her. Of the 2 does standing together, the one nearest me fell in her tracks; the other ran 40 or 50 yards before falling.

I had arranged with Tom to come out with the mules if he heard any shooting, and before long he made his appearance. We packed the 4 deer to camp, and the amazement of our boarders was laughable. Thereafter they were willing to admit that they did not know all about hunting. They stayed with us 2 months and soon learned to find game for themselves. Tom and I remained in camp after they left, and put in our time trapping.

AMATEUR PHOTO BY C. C. SPEIGHT.

DEER MOUSE.

HUNTING WOLVES IN EASTERN NEBRASKA.

ARTHUR L. ANDERSON.

Wolves and coyotes have again descended on the fold in Nebraska. Scarcity of feed on the Western ranges and consequent diminution of the herds and flocks, together with the increasing warfare that has been waged against them, have driven these outlaws of the genius *canis* nearer to civilization the past winter than they have come in many years. At one time coyotes were as abundant in Nebraska as prairie dogs and jack rabbits; but with the recession of the frontier they also receded and were nigh disappeared.

Whatever the cause wolves and coyotes are again plentiful in that State. Farmers do not relish this propinquity, and have taken active steps to induce the intruders to retire.

Ordinary methods of dealing with the pests have proved inefficient. The offer of bounty has served but to induce the unscrupulous to breed wolves for the purpose of selling their scalps to the public. A few years ago a bunch of enterprising cowpunchers gathered up hundreds of wolf scalps in Montana and Wyoming and shipped them to Eastern Nebraska and Western Iowa, where several counties were nearly bankrupt before the fraud was discovered.

Such things tended to discourage the practice of paying bounties and left it incumbent on the farmers and stock raisers to fight the wolves themselves. What was a popular sport in the early days of the State has been revived, and grand wolf drives are being carried on in counties where they have not been known in many years.

One of the most primitive methods of hunting was the formation of a cordon of men around a specified area, who gradually drove to a common center all animals caught within the slowly narrowing circle. This practice was followed before the first dog ceased to be a wolf. When the Nebraska farmers decide on a wolf drive notice is given to all residing within the area to be beaten over, usually a space about 20 miles square. Every able bodied man and boy joins the hunt, for the fun of the thing is ample repayment to anyone with a drop of red blood in his veins. Captains are chosen to control the sides; always 4, for the territory is marked in a square, and the beaters approach along its 4 sides. Ample precaution is taken to secure the safety of all concerned from anything but unavoidable accidents. No fire arms save shot guns are allowed; rifles and revolvers being too dangerous. In some cases even the shot gun is tabooed, the killing being done with clubs.

On the day appointed the sides set out. The captains agree as to the points where the columns shall converge, the aides are instructed in their duties and the hunt begins in earnest. Slowly, steadily the lines move toward the place of meeting, which is of necessity an open meadow or field, driving everything before them. As the area is cut smaller and smaller the alarm of the enclosed animals becomes frantic terror. Prairie chickens, quails and other game birds, rabbits and the like, flee in wild dismay from the approach of the human walls; while the wolves, seeming to realize the trap in which they are caught, dash back and forth in search of shelter or a place to escape.

Those that try to break through the cordon are shot as they run. Around each of the 4 sides stands a solid wall of men and boys armed with every weapon with which a wolf may be killed, and yet which is not essentially dangerous to the users or their companions. Here the dogs are brought in play. These are generally strong hounds, who can easily cope with a wolf in open fight. When the dogs are set to work the wolves are in the extremity of fear or of desperation. Some rush wildly to one side or the other of the square that has caught them, only to be shot. Others are pulled down by the dogs. No matter whether they fly or fight, death is their portion. Sundown of the day of the wolf drive finds the farmer homeward bound, rejoicing that a dozen to 20 more of his 4-footed foes have died.

"Fifty dollars for such a little dog!" exclaimed the possible buyer. "It doesn't weigh over 4 pounds."

"I know, mister," said the dog dealer; "but I'm not offering it to you as sausage."
—Judge.

THE OLD DRUMMIN' LOG.

BRAD L. HUBERT.

Many autumns now have vanished since my
brother Tim and I,
While a-milkin' in the mornin', jest as day
was drawin' nigh,
Heard a bit of pleasant music kinder floatin'
through the fog;
'Twas the boomin' of a pa'tridge on a well
known drummin' log.

Quick we left the tiresome milkin', skippin'
quickly from the stall;
Softly stole into the kitchen, took the
musket from the wall;
Then we hustled off like Injuns on a light
and stealthy jog,
Down toward the cheerin' music wafted
from the drummin' log.

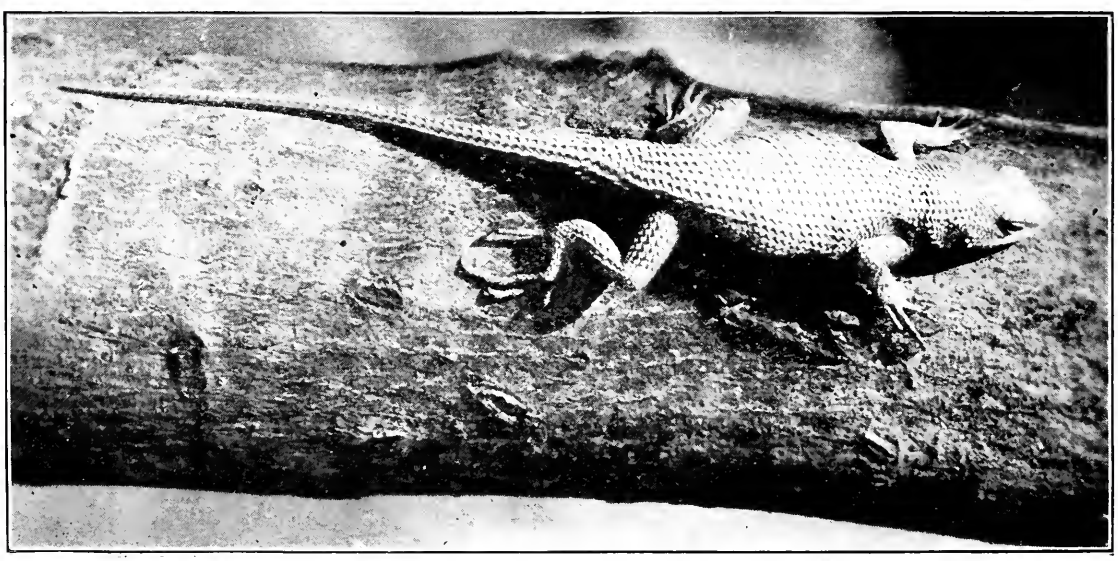
On all fours we went a-creepin' fer a dozen
rod er more,
Gettin' thistles in our fingers, an' our
breeches badly tore;
But we slid along with caution, through
the damp and through the fog,
Fer we heard the steady boomin' comin'
from the drummin' log.

Then we did some cautious peekin' through
a clump of little trees;
Gee! there set our feathered drummer, jest
as perky as you please;
So we shoved the faithful musket 'cross a
hummock in the bog,
Allers keepin' of our optics glued upon the
drummin' log.

Glancin' straight along the barrel, brother
took a careful sight,
While we almost quit a-breathen' lest the
bird should take a flight;
Then the shooter pressed the trigger, all
his faculties agog,
An' the smoke went rollin' forward to'rd
the big old drummin' log.

With our hearts jest fairly bumpin', off we
started on a run
To pick up our splendid pa'tridge, never
stoppin' for the gun—
Jumpin' Jinks! what disappointment! all
our bright hopes slipped a cog;
'Twas a knot that we had peppered on that
cussed drummin' log.

Then the pa'tridge jest up an' flew.



TAKING A SUN BATH. AMATEUR PHOTO BY J. W. JONES, JR.

MUSKRAT TRAPPING.

J. A. NEWTON.

When the trapping grounds are of considerable extent and game is plentiful, muskrat trapping can be done most profitably by 2 men working together.

Several years ago I joined forces with a veteran trapper known as Shepp; it being our intention to "skin the river," as Shepp termed it, and then haul our boats and luggage to the lakes in our vicinity, moving from one to another as game grew scarce. At that time there was no law regulating the taking of fur animals and we usually began rat trapping October 15. As we intended driving to and from our traps each day, no camp equipage was required. We had only to repaint our boats and color our traps to hide their accumulations of rust. The latter we did by boiling them in a dye made from walnut shucks or soft maple bark. The traps are placed in the liquor after it has acquired a dark color and each lot of traps is boiled 15 or 20 minutes or until they are blackened. New traps will not take the color until they have been used a week or so to rust them.

Shepp and I owned over 100 traps between us, and as most of them were old, many repairs had to be made. Then, when we had cut a quantity of stakes having prongs at the top, we were ready for business.

We were each to take one shore in setting the traps. The South shore, which I was to follow, presented a low, sandy stretch at first, with no grass or material to attract rats. As Shepp's side was exactly the reverse I paddled along slowly, watching his shrewd methods. The first sign noticed was a quantity of droppings which had been deposited on a half-submerged log. Shepp produced his hatchet and chopped a notch under water and just below the sign, large enough to contain the trap when set. He was careful not to knock off or disturb the sign. The notch was cut so deep that the trap when set would be barely under water; the chain was stapled to the log, no stake being required.

"The rat was there last night," said Shepp; "you see the top deposit haint dried a bit. If he had stopped coming, the sign would all be dry."

A few rods farther on, a log showed much sign, but it lay so high a water set could not be made. Shepp is always looking for just such perplexities and is prepared for them. A notch was chopped as before at the point showing most sign and lightly covered with dry, short, broken June grass, which was sprinkled with water to prevent its being blown away. In all cases the trap must be covered by water or grass or nothing can be caught in it.

We then came to high, grassy banks where rats had been climbing and digging up vegetable matter.

"Now, most likely one rat did all that work," said my companion. "They ain't more'n a pair of 'em anyway; so I pick out the places showin' the most diggin' an' set to 'em. A feller not so well posted would set a half dozen for one rat an' soon have all his traps out fer mighty little purpose."

Here the traps were set at the foot of the scratch signs, bedded to set level and at the same time be barely under water, and the chain was staked full length in deep water to insure the rat's drowning before it could twist off a foot.

Before many traps were set out we came to a large bay filled with a rank growth of flags and reeds and containing several houses on which the rats had recently been working, as indicated by material that was still wet. One side of a house is always of a gradual slope. That is the roadway traveled by the rats in carrying up material for construction and repairs. In the fall the trap should always be set at the foot of the slope and bedded level. If the water is shallow it should be deepened by the paddle, to insure drowning.

We found several feed beds, floating masses of chewed flags and grasses, built by the rats to sit on while feeding on flag roots and other food. Traps were set on those and bedded by parting the material until they were submerged. The water was deep and the longest stakes were used. Some well traveled runways led off among the reeds and grass, and traps were set in a few of the most promising ones where they met deep water.

A stretch of wild rice was seen where cuttings and signs were numerous. The water, however, was so shallow that to have set would have insured the loss by foot amputation of every rat caught, as no excavating could be done there, the bottom being hard. There Shepp used an invention of his own. Out from shore, where the water was 3 or 4 feet deep, he lopped down enough grass to form the semblance of a bed, and on that a trap was set with the water just covering it. Six or more of these artificial beds were made, 3 or 4 rods apart.

"There! that'll ketch every rat and they'll git drownded, too," said Shepp.

We noticed a number of burrows deep under water where the banks were high. They were set to by lowering a trap into the entrance. Shepp explained that the trap must not be pushed into the burrow, as it would probably be sprung without catching the rat; nor set too far from the entrance, lest the result be the same.

Said he: "Settin' jest at the entrance the rat'll git caught when he dives down to enter; or if he's comin' out he'll git caught by a hind foot or his tail when he raises."

When animals have had a rest of 6 or 7 months the first night's trapping takes them unawares, as the following morning proved. We set 65 traps, which yielded 34 rats, and 6 more contained feet of others that had twisted up in grass and reeds.

After trapping as much of the river as lay within easy reach, we pulled for the lakes. There the methods pursued were the same as in the river, except that trapping was confined to houses, feed beds, runways, and floating bogs. There were no burrows or logs to trap.

One large lake was so low and miry that we could not trap it, though it seemed alive with rats. There were perhaps 200 houses on its margin. When winter came and the ice was safe, we determined to trap those houses. In winter trapping the house is cut open with a hatchet, no larger an opening being made than necessary, for the frost must be kept out or the diving hole will freeze. When the diving hole does not go down from the nest too abruptly, a water set should be made. If the descent is perpendicular and the nest is the only place to set the trap, it may be set there and covered with cattail down. The stake is placed in the diving hole so that the rat may drown. The opening cut must be carefully filled to exclude the frost, and if there is snow the plug should be banked with it. When traps in houses are not disturbed within 2 days it may be concluded that the occupants have all been caught or driven away.

When spring came we again launched our boats on the river. The signs were then almost entirely confined to logs, snags, and scratch signs in the banks. Each was trapping on his own account and Shepp made the larger catch until I noted his spring tactics. After making a log set he placed a large handful of grass on the log above the trap, and wet the grass to keep it in place. I asked an explanation of this procedure and Shepp said, "Rats notice everything unusual in spring more'n any other time. After the rat that made the reg'lar sign has been caught the females will be drawn by the grass sign an' caught when they climb on the log. Then they's lots of stragglers travelin' in spring that a wad of grass'll be the means of getherin' in if a trap is doin' duty."

Grass was placed on the bank above the traps when setting at scratch signs, and after the first night's trapping, when there is plenty of bait, muskrat flesh or the intestines are posted on a forked stick over the water, a foot from the trap when setting at scratch signs, or are pinned down on the bank just above the trap. This bait lures rats to the trap by its appearance and scent and many a traveler is thus taken that would otherwise swim past. Burrows are usually filled with rubbist in spring and are so little used that the trapper neglects them.

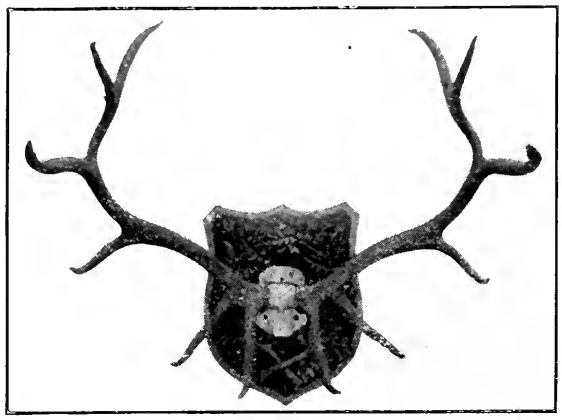
The most vexing thing is the rise and fall of water. If the water is rising rapidly its rate must be guessed and traps set high so that conditions will be right when the game comes along. If the water is dropping, the traps must be set deep. The amount of probable drop is much harder to calculate than the rise. As a rule the traps will be found out of water the following morning; and the signs that were set to high and dry. Signs made during the night will be found below the traps. Lakes maintain a steady head and afford the most satisfactory trapping when streams are changeable. The No. 1 trap is used for rats, and trapping should be done between November 1st and April 1st in the Middle, Eastern, and Northern States. Fall rats usually sell for 3 to 10 or 11 cents; winter, 12 or 14 cents; spring, 12 to 16 or 18 cents.

Flossie was sent to the drug store to get some dyestuff and forgot the name of it. "What is it folks dye with?" she asked. "Oh, various things," replied the druggist. "Heart failure, for instance." Well," said Flossie, "I suppose that will do. Give me 3 cents' worth, please."—Grit.

HERE'S YOUR BEAT!

Speaking of horns, Mr. W. C. Darling, of Henderson Harbor, N. Y., shows a picture on page 194 of March RECREATION, and asks: "Who can beat them?" Here's a pair that will do it.

I parallel the dimensions:



LONGER THAN WILLIAM'S.

	Darling	Kinsey
Spread	53¼	53½
Beam lengths .....55 &	56½	56 & 56½
Total beam length across skull	111	119
Longest prongs .....16 &	17	23 & 23½

I don't understand how Mr. Darling figures out that if his elk horns had been mounted "with the animal's head between them, their spread would have been 24 inches greater."

The fair way is to base measurement on the natural position of the horns, and Mr. Darling's picture shows that his antlers are mounted in a natural position, or nearly so, as he can see by comparing with mine, which are attached to a section of the skull, just as they grew originally. If I were to criticize Mr. Darling's pair, I I should say that the upper part seems distorted from the natural shape, as if an effort had been made to obtain spread by springing them apart at the tips.

I don't know that "Me and William" have the only horns in existence that beat Mr. Darling's, but if his measurements are correct, each of my prongs beats the Emperor's, just an inch apiece.

Mine are not for sale; just to keep and blow about.

Geo. Kinsey, Cincinnati, Ohio.

Yours is the "only gravel on the train," when it comes to sportsmen's periodicals.

Frank Poindexter, Eugene, Ore.

RECREATION is the best sportsmen's journal in the country. I would not be without it, if it cost 5 times as much as it does. J. G. Randall, Isheming, Mich.

THE WILD GOOSE CHASE.

REV. F. C. COWPER.

The night was dark, the wind blew wild,
The arc lights flickered in the blast;
The wild goose cohorts Southward filed,
To warm lagoons, on pinions fast.

The blinding storm and fitful gleam
Of swinging lanterns in the town
Have wrought confusion in that stream
Of living breasts of eider down.

The leader for the time is lost,
The geese, loud screaming with affright,
'Gainst trees and chimney-tops are toss'd,
A silly host in helpless fright.

Excitement through the town prevails,
And wildly hooting men and boys,
With guns and stones and clubs and flails,
Make night tumultuous with their noise.

But in the morn the tale was told
That but one bird was in the place,
And he was scrawny, tough, and old;
Sole trophy of our wild goose chase.

AMATEUR PHOTO BY W. J HEEBNER.

A MAINE FREAK.

A BUFFALO FISH HOG.

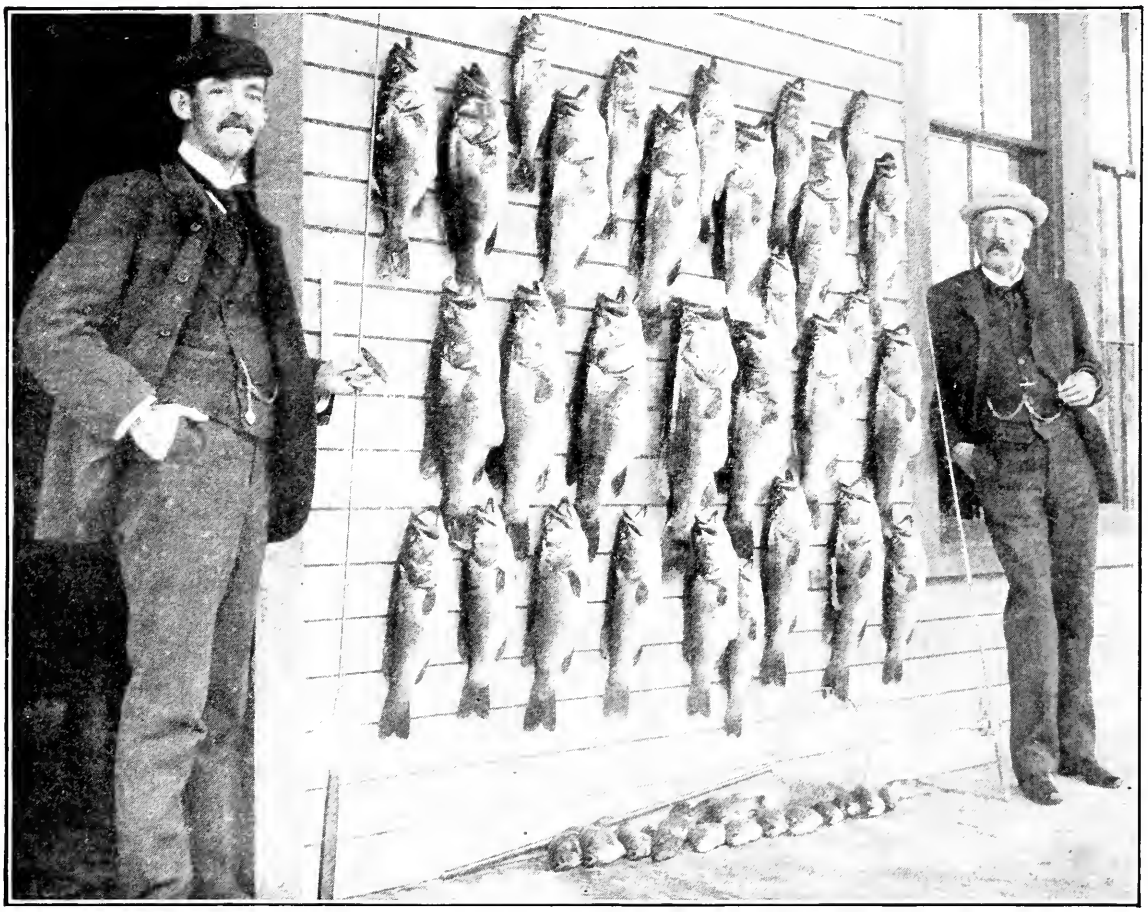
I regret to have to call your attention to the enclosed picture from the Buffalo *Express* of February 23. It shows we have here some of the genuine breed, and I take it that the Mr. Clay referred to is the oldest member of the herd. He at least has to leave Buffalo to show his proclivities. Based on the picture of the Goldfield herd, as posed for a recent issue of RECREATION, Mr. Clay is far more culpable, because while the 4 in that group caught 250 pounds of croppies, Clay, personally, and alone, caught over 230 pounds of large mouth black bass. The picture shows 30 fish on the wall and a dozen more in the pile on the floor.

Mr. Clay, no doubt, thinks he has done a great thing, and the local editor seems to consider the feat worthy of presenting to his readers. Of course Clay knows that in this State he could not take in one day so many bass, but probably he would if he had the chance. H. M., Buffalo, N. Y.

Here is what the *Express* said of the picture and the man who posed for it:

Lake Erie fishermen this winter complain that there are no fish. How different is the luck of a well known Buffalo man, Mr. H. M. Clay, who is spending the winter in Florida. He is seen at the right in the above picture, with the fish he caught in one day recently near Sanford, on a 7 ounce rod. They are all large mouth bass. Usually a 2 to 4 pound bass is considered a prize. There are shown hanging up 30 fish, weighing 230 pounds, an average of over 7 pounds. The largest weighed 14¼, the next 11¼, and the next 10; total 83 pounds. In the foreground are several bass 2 to 5 pounds in weight.

Another case of slaughter and vulgarity combined. When will men learn that butchery is not sport? When will newspaper men learn that such exhibitions as the above are disgusting to all decent people.—EDITOR.



A MEMBER OF THE BUFFALO HERD.

You are doing more for the protection of game than you have any idea of, and your sentiments can not fail to be endorsed by every true sportsman in the country. RECREATION is making sportsmen out of hundreds of men who were fish and game hogs. J. Dickson, Durham, N. H.

May—I hear Belle had a great talk with Harry out on the beach.

Clara—I should say she did. Even her tongue is sunburned.—Life.

MR. LACEY'S SPEECH ON THE GAME PRESERVE BILL.

When the bill to convert certain timber reserves into game preserves was before the House of Representatives, Mr. Lacey addressed that body as follows:

Mr. Chairman: Our ancestors were all killers. Prehistoric man with his club and his stone weapons no doubt exterminated the mammoth. If these cruel forefathers of ours had owned breech loaders the progenitors of the horse, the cow, the sheep, and the ox would have disappeared from the earth long before domestication. The boy of to-day is as bloody minded as his naked forefather, and begins to slay the birds and beasts as soon as he can hold a stone in his chubby hands.

From the days of the troglodyte the unequal contest has raged. Stone, bronze, iron, hawking, and gunpowder were added to man's power to destroy. Now, with the breech loader and later improved weapons, man has become omnidestructive. He goes 500 miles for a day's shooting or half way around the world for a brief hunting and fishing trip.

The immensity of man's power to slay imposes great responsibilities.

We are threatened with the probable extinction of many varieties of birds and beasts. A birdless world would be a dreary place to live in and a birdless air would be unfit to breathe.

The wild pigeon has gone to join the great auk and the dodo in the realm of obliteration.

We may well pause and consider the situation with which we are confronted.

I read the other day of a hunt in the South where 2 prominent gentlemen from New York killed 1,600 ducks in 2 days, and generously gave them away to show that they were not mere ordinary pot hunters.

These sanguinary sportsmen should have rather hired out or volunteered to stick pigs for 2 days for the meat packers, where they might have glutted their appetite for gore in a more creditable way. The reckless, improvident, and indiscriminate slaughter of our fish in the rivers and the seas only is an illustration of that large waste of our natural resources that is going on in all directions. The natural gas was once worshiped as something supernatural. Now it is used for the most practical of all purposes. It has been recklessly wasted as though it had been infinite in quantity, and the depleted fields show the results of our extravagance.

Oil and forests have been extravagantly exploited in the same way.

Take the State of Texas, where a few months ago we were having many "gushers," supplying oil each at the rate of 74,000 barrels a day. Now, the newspapers tell us, the oil has ceased to flow. Experience shows that all these resources are limited.

Oil in Texas may long be pumped, but vast as the supply is it is exhaustible.

Since I have been in public life I have devoted some part of my time to the subject of the conservation and restoration of our natural resources. This question naturally arises in connection with our public domain.

It is a shocking thing to see the people of the Pacific coast wantonly engaged in making their opulent salmon streams as desolate and barren as the once prolific Connecticut now is.

Mankind must conserve the resources of nature.

When our people were cutting one another's throats during the war of 1861 to 1865 game in the South became abundant, for men had ceased to hunt anything but human kind; but when peace came the war against the creatures of the field and forest was again renewed and waged with unremitting zeal.

It is no credit to mankind that animal life is more abundant to-day around the inaccessible poles than anywhere else on the planet.

Fish in the inhospitable Hudson's bay region are so plentiful that they could not furnish names for them all, and, like the statue to the unknown god at Athens, one of these Canadian fishes was called the "inconnu" or the "unknown" fish.

The proposed railway to Hudson's bay will change all this. The slaughter will grow furious when "civilization" invades this breeding ground of the Far North. Someone must in these days teach the science of how not to kill.

There are 46,000,000 acres of our forests now preserved to keep up the supply of water for our rivers. This is a great step in the direction of husbanding Nature's resources. Farseeing and practical men saw that a part of the forests must be saved or the remainder of the land would become a desert, and the forest reserves were established against the protests of the unthinking.

A few of the primeval woods remain as reminders of the past. A Hibernian friend, a genial ex-Congressman from New York, once defined a virgin forest as "a place where the hand of man has never yet set his foot." This incident shows that the

Irish bull, at least, is not yet extinct. [Laughter.] Our forestry laws have enabled us to save some of these wholesome and delightful retreats.

These woods, thus set apart as the sources of water supply, may be made the city of refuge for the feeble remnant of the mighty throng of animal life that once filled this continent. We have seen the buffalo so nearly exterminated that only about 500 living specimens to-day may be found in the whole world. Their domestication was as practicable as that of the reindeer, the horse, or the cow. The buffalo was the noblest of all the wild animals that inhabited this continent when America was discovered.

The ages in which this wonderful creature was evolved into his peculiar form and size are inconceivable in duration. How admirably he was adapted to life on the Western plains. When he had fed he traveled with his fellows in long lines, single file, to the favorite watering place. The herd did not spread abroad and trample down and destroy the grass in such a journey, but in long and narrow trails the journey was made, and when the drinking place was reached and thirst was sated the buffalo never defiled the pool in which he drank. He was a gentleman among beasts, just as the game hog is a beast among gentlemen. Perhaps out of these scanty remains new herds may again be produced.

We have preserved the wild turkey, which Benjamin Franklin proposed should be adopted instead of the American eagle as our national emblem. The turkey has been saved; the buffalo ought also to have been domesticated. A few of the buffalos still remain. This bill makes provision by which we may have the opportunity of propagating them within a portion of the forest reserves.

Public sentiment is growing in favor of the conservation of our resources. It is timely as to some things. It is far too late as to others.

Mr. Chairman, there are these 2 propositions involved in this bill: First, to allow the Bureau of Forestry in the Department of Agriculture to take charge of that extended farming of the forests which only the Government can manage; second, that in a moderate degree, and within the desires of the people of the locality in which the forests are located, game and fish preserves may be established for the benefit of the surrounding country.

The bill was defeated by reason of the opposition headed by Cannon of Illinois, Shaffroth of Colorado, and others because they feared direful results from the proposed transfer of certain forest reserves from the Interior Department to the Agricultural Department.

We shall not quit here. The measure will be reintroduced in the next session and will no doubt then be passed.

AUTUMN JOYS.

ARTHUR HAZLETON.

When evening shadows gather fast,
And all the sports of day are past,
We wend our way with dog and gun
Back to the farm house, one by one.

Our gracious hostess meets us there,
With wellspread board of ample fare;
The fireplace lends its cheerful gleams,
And on the hob the coffee steams.

Now to the table we draw near,
Where all is happiness and cheer.
We've tramped all day o'er dale and hill;
We eat and drink with hearty will.

Then in the fireplace's softened glow
We sit, and talk in accents low;
The dogs curl up, and soon, in dreams,
Are hunting by the sedgy streams.

FROM THE GAME FIELDS.

The man who quits when he gets enough, with plenty of game still in sight, s a real sportsman.

A SPECIOUS PLEA.

W. E. Newbert and W. H. Young of Sacramento recently enjoyed a trip to Norman, in Glenn county, in quest of wild geese. They report a fine day's shooting, despite the fact that it rained heavily and that such a strong wind was blowing the geese could hardly fly against it. However, 173 brant fell to the guns. While there the shooters were informed that the farmers of that locality were employing men to herd the mallard ducks off their sprouting grain, and were slaughtering vast numbers of the birds, which were allowed to stay on the ground where they fell.—San Francisco Evening Post.

Touching this matter, W. W. Young writes as follows:

Yes, we did kill 173 geese or brant in what is termed one day's shoot; that is, we shot 2 hours on the afternoon of February 21st, and killed 32 birds, and on the following morning, in about 5 hours bagged 141 more. Nearly all were small brant. The remainder, 2 or 3 dozen, were what are locally known as Mexican brant.

Now, while offering no apology for our large kill, I should like to explain the matter to you and the many readers of RECREATION.

Norman is in one of the most productive grain sections in California and is about 20 miles from the foothills where the geese begin their long flight Northward in the spring. The railroad divides the county into 2 sections; to the West being innumerable grain fields, and to the East a grand ridge 3 miles wide and many miles in length. On this ridge the geese congregate by millions, and generally remain several weeks, feeding in the adjacent grain fields until they have accumulated enough fat to last them until they reach their next stopping place in the North. One can readily see how destructive they must be to newly sprouted grain. In fact, the farmers in that neighborhood are compelled to hire men to herd the geese off their grain, night and day. One wholesale hardware firm in this city formerly shipped every Saturday to the large Glenn ranch, in the vicinity of Norman, 20,000 to 50,000 rifle cartridges to be used in driving the geese off the grain fields.

On our trip we saw from car windows one continuous flock of geese on the ridge, extending nearly 10 miles. At one time during our stay, I saw 5 flocks of geese in the air at one time, in as many different directions, that would have easily covered 20 acres each.

Doc Stuart, Abe Crump and Claude Kager, all thorough sportsmen, men who would go out of their way at any time to apprehend a violator of the game laws, had been shooting geese several years on what is known as Mame prairie. Farmers in the vicinity of Norman invited them to settle there, which they did. They were given permission to enter all fields in that vicinity; the farmers furnished them horses and hauled firewood for them.

Stuart and his party have a large number of live geese for decoys, and many wire forms for stooling dead birds. The men are all expert goose callers, and have reduced goose shooting to a science. The birds are shot from pits dug in the prairie, and the first shot is never fired until the birds are within 20 yards, so few cripples are sent away. The game is taken to camp; the guest is given all he desires and the remainder is shipped to the San Francisco market.

I am told that the constant shooting has, to the joy of the farmers, caused the birds to leave for the North 2 or 3 weeks earlier than usual.

Here in California we do not think enough of wild geese to protect them, and one is at liberty to at any time kill all he can. In spite of that, they were more numerous last year than they have been since the Stuart party began shooting.

Will H. Young, Sacramento, Cal.

Mr. Young presents what on its face appears a case of justifiable homicide, but there is still left behind his defense and that which he puts up for his neighbors, the intent of excessive slaughter. If, as he claims, the only object in this shooting was the protection of the crops, that could be accomplished just as well by firing blank cartridges at the birds or by chasing them with dogs or on horseback, or even on foot, as by killing them. It is not necessary in order to save the crops that men should bury themselves in pits and lie closely concealed until the unsuspecting geese and brant are within 20 yards of them, then rise up and pour murderous volleys of heavy shot into them. If the real object was to save the grain, why should not the men sit up or stand up or walk about when they saw the birds coming? If they would do this the birds would not come anywhere near them. The farmers who are spending money for ammunition evidently have their eye on the mighty dollar which they can get from the market when they send the birds in. Whether they get back more money than they pay for the ammunition I do not know, but they could doubtless em-

ploy boys for 50 cents a day each, who would chase the geese off their big ranches at much less outlay than they would incur in buying the thousands of cartridges these men burn. Then the geese and brant would be saved for the 100,000 other people in the West who have the right to a few of them when they can get them. Brother Young, do not ever again try to justify yourself for having killed 100 or 200 brant in a day by claiming that they were eating the wheat. Kill 5 or 10 in a day; then, if your object is to save the grain, take a broom or a whip and shoo the birds away.—EDITOR.

ELK, BEAR AND DEER ARE FOLLOWING THE BUFFALO.

A deputy game warden in Colorado recently made some forcible remarks on the senseless killing of big game. He said:

The day is coming, and it is not 5 years away, when elk, deer, bear, and all wild game will be so scarce in Colorado that one can hunt for a week and not get a shot. The way the big game of the State is allowed to be exterminated is an outrage. It will be the same story as that of the buffalo, and now people are lamenting the extermination of the buffalo. When it is too late, and all Colorado's game is extinct, they will also regret the elk and the deer.

I lived ahead of the railroad when it was built across the plains from Topeka to Denver. I had a portable house and kept moving it as the road was built. I saw much of the shameful waste of game then. I have seen men shoot buffalo down by hundreds, start the hide and hitch a mule to it; pull it off, and leave the meat to rot. I have seen 20 flat cars in one train stacked as high with buffalo hides as they would pass under the bridges, bound for the tanneries in Kansas City. I have ridden on the pilot of the engine when the road was building, and in a run of 20 miles have seen 50,000 buffalo.

A few years later I saw hundreds of men going about over the plains gathering wagonloads and trainloads of buffalo bones. That is how the buffalo went.

Now the other game is going the same way. Nobody tries to stop it until it is too late. Game Warden Harris is one of the best wardens we ever had. He would stop the slaughter if he were let alone, but they do not give him any money. Politics figures in the matter, and he is not allowed to do anything. If they would give him a free hand and money he would do it.

The game is going fast. I can remember 10 years ago, when I lay hidden in the brush on Farwell mountain, and saw a band of elk pass by. I counted 400, and there must have been 200 more. When the last of the herd was passing I shot a big bull and his head now hangs in the Brown palace lobby.

Now you can hunt the whole mountain over and you will never see more than 20 elk in one band, usually only 5 or 6. They have been killed off.

It is alarming, too, to see how the deer are thinned out. This year there are not more than 1-6 as many fawns as there were last year. The bucks have been killed off until there are about 6 barren does to every one that has a fawn. I have been all over the game country and I know. There are scarcely any fawns this year.

The grouse are being killed off, too, and there is only about half a crop of young ones. When you see a hen this year with a brood of little ones she has only 5 or 6, instead of 10 or 12, as usual. That is because of hawks, eagles and coyotes. The coyotes are following man up into the mountains. I never heard of a coyote up in my neighborhood until the last few years. Now there are many.

But it is the men that are killing everything and will never be satisfied until they have exterminated everything that runs wild.—*Exchange.*

THE DESTRUCTION OF ANIMAL LIFE IN ALASKA.

Beginning about September 1st, both native and white hunters cruise among the islands in small boats and either hunt the deer with jacklights or run them into the water with dogs and shoot them while swimming. The greatest slaughter occurs about Wrangel, where the deer are most abundant. Carcasses of deer often sell for $1 each, and frequently the bodies are piled up on the wharves like cordwood. I was told by one person that he has seen the loft of a warehouse hanging so thickly with their bodies that it seemed impossible to crowd in even one more.

It is no uncommon occurrence for sloops manned by small crews to return from a few days' trip with 50 to 75 carcasses. Often only the hindquarters are taken. From my notebook I copy the following, under the name of Harry Pigeon of Wrangel: "I saw 5 men return from a week's hunt with 152 carcasses of deer aboard their sloop."

Deer skins have a commercial value of 10 to 20 cents each, and small as this is, thousands are slaughtered for their hides alone. While at Juneau I saw, in the Pacific Coast Company's warehouse, 10 bundles of deer hides, each containing about 70 skins, awaiting shipment. A few weeks

later a second shipment of the kind was made.

While the slaughter of moose is not so great, numbers are wantonly killed, as the following will show: Two men at Chickaleon bay, near Turnagain Arm, Cook Inlet, killed 16 moose in 2 days. The first day one shot 8 and the other 7. In order to make an equal showing with his companion, the one who killed only 7 took pains to shoot another the next morning. Little if any of the meat was taken.

The North American Company's agent at Knik placed an order with the Indians for 24 head-skins, from heads of bull moose only. One windy day the total number was secured and the relator was quite confident that more than were asked for were brought in.

In the summer of 1889 one Indian killed about 50 moose back of Tyonek. In the winter of 1901 one of my Indians killed 5 moose back of Kn k, and saved the meat of but one. When asked why he did not use them all, he replied that "they were bulls!"

Probably the demand for heads and skins is doing more toward diminishing the game about Cook Inlet than anything else. Tempted by the prices offered for heads, the Indians and a few whites shoot promiscuously in hope that the animal killed may prove to have extra large antlers or horns. As it is usually impossible to judge the size of a head until its owner lies at one's feet, hundreds of animals are slain without being touched.—J. A. Loring, in the N. Y. Zoological Society's Annual Report.

This slaughter was committed before the enactment of the Lacey Alaskan game law. It is to be hoped the officers charged with the enforcement of that law will see to it that no more such butchery is perpetrated. —EDITOR.

AS OTHERS SEE US.

Though I have been all my life a lover of Nature and its wild creatures, I have been unfortunate in not discovering RECREATION until recently. It stands unreservedly for every idea I have cherished concerning game and bird protection, and while it does so I shall remain its loyal friend. My father was a German forester and loved every wild thing in the woods. He would not kill even a snake. It was under his teaching that I acquired a love for God's inarticulate children.

I came to this country in 1868 and have seen the total destruction of the buffalo and the wild pigeon. Countless other species are in process of extermination. Another 20 years, if the wanton destruction is continued, will see this fair land inhabited chiefly by domesticated animals and 2-legged creatures bent on turning creation into dollars and cents.

Compare with the United States such thickly populated countries as England, Germany and France. In those animal life is nearly as abundant as it was 500 years ago. The people there protect the lesser creatures and sternly prosecute trespassers. Here the people are rocked in the cradle of liberty until each individual thinks he owns the whole outfit, from rockers to canopy. No one or thing but he has any rights. As a result we shall soon be an animalless and birdless country, while those others will be long blessed with things other than human and manufactured.

Since 1870 my occupation has taken me all over Iowa, Illinois, Indiana, Ohio, Missouri and Kansas. Many times have I been disgusted with the barbarous slaughter of game that I have seen in season and out. In every village I have found one or more beings, too lazy to work and too cowardly to steal, who lived by butchering everything whose murder would not land them in jail or on the gallows. Why the mass of American people submit to such work passes my comprehension. An American game hog transported to Europe would find life a burden, and quickly hang himself to be rid of it.

If it were in my power I should rigidly protect all wild life on this continent, excepting, for a short yearly season, such animals and birds as are admittedly game. Even hawks and owls I should protect, save the 3 or 4 species that have been proven enemies of other birds. The farmer who indiscriminately kills hawks and owls, kills his best friends.

Eastern countries are perhaps effete in some respects, but they are a thousand times more alive to game protection than is this, in other ways, the greatest country of all.

Gerhard Schmalhaus, Davenport, Ia.

THREE YOUNG BRUTES.

Three of us, Willie, Wesley and I, were camping on the Upper Bog, in the Adirondacks. One sunny afternoon in September we were alternately rowing and floating down the still water, having been up toward Moosehead, looking for berries. We had an old single barrel muzzle loading shot gun, but had exhausted our ammunition shooting at marks and small game. Suddenly one of the boys called out:

"What's that swimming between the main shore and the island?" I looked in the direction pointed out, and saw the antlers of a good sized duck moving rapidly toward the island.

"It's a deer, boys," I cried; "let's try to head him off. One of you get at the oars and the other take the pad-

dle. May be we can get close enough to smash him on the head with the butt of the gun." The boys sent the boat flying over the water and we were soon within 2 feet of the buck. I was about to hit him on the head, when he turned so abruptly that I nearly lost my balance. I shouted to the boys to head him off again, and they certainly did good work. For several minutes we kept him at bay between the island and the main shore, sometimes approaching close enough for me to touch his horns, but each time he would give a sudden lurch and change his course. I shall never forget the haunted expression of his eyes as he swam, with antlers thrown well back, his breath coming in quick gasps. At any other time I know I should have had compassion on him. When we were congratulating ourselves that he would soon be our game we came to our senses sufficiently to hear shouting and shooting on the main shore. There a bunch of buck-crazed city fellows were firing at the deer, the bullets whizzing all about us. The more we shouted to them to stop, the more they fired and the more crazed they became. Finally we began to consider our own safety sufficiently to stop our boat about midway of the river. The buck, seeming to gauge the ability of the metropolitan Indians, swam directly toward them, notwithstanding their firing and yelling, reached the bank, and leisurely moved off into the woods unscathed.

W. B. Leonard, Glens Falls, N. Y.

I am glad the deer escaped. You should have let it alone in the first place. If you had not a gun and could not kill the deer suddenly and in a sportsmanlike manner, you should have let it alone. Your attempt to beat it to death with an oar was brutal, and you should be heartily ashamed of it.—EDITOR.

BRUTALITY, NOT SPORT.

It was with great pleasure that I accepted an invitation last fall to hunt quails and rabbits. Taking my double barrel shot gun and 50 shells I started with my friend and soon we reached the stubble of an oat field.

There we separated. I had about crossed the field when I heard a slight rustling and detected a movement on the ground in front of me. First I thought it was field mice but finally decided it might be quails and I fired into the stubble. Up sprang a flock of the birds and I fired my left as they sailed away, but missed. I marked down 5 or 6 near the corner of the lot. I found I had killed 4 with my first barrel. Much elated, I headed for the fence.

When about 25 yards from the corner, I saw 2 quails sitting side by side on the fence. I let fly both barrels. My aim was true and both birds were mine.

Looking for the other birds I noticed a small bunch of oats left by the reaper, under which quails could easily hide. First I thought I would go up and kick the bunch, but finally decided it would be too much trouble, so fired both barrels into the oats. Much to my delight the shot added 3 more quails to the 6 already in my bag.

The remainder of the afternoon I hunted rabbits and succeeded in getting 19. I would have secured more if they had not got into the stone walls after being wounded. On my way home I passed the place where I shot the quails, and, hearing one calling on the fence, I crawled up and popped him over. That made 10 quails.

My friend did not have such good luck, as he had to return earlier than I because of wounding his hound in firing at a rabbit which the dog was pursuing. However, he succeeded in getting 14 rabbits and a ruffed grouse which he found running on the ground with a broken wing.

Thos. B. Daley, Norwich, Conn.

Talk about prohibiting the use of dogs in hunting! A dog is a gentleman as compared with this man. So is the man who uses the dog. As a rule I have found that only real sportsmen use dogs in hunting birds. Such men never shoot a bird until it is on the wing, but here is a man who would doubtless condemn the use of dogs in hunting. He goes out, ground-rakes his birds and kills 4 or 5 at one shot. He fires both barrels at 2 birds sitting on a fence and is delighted to see them fall, mangled, to the ground. This man is of the same type as the brute who uses a ferret.—EDITOR.

A WHITE DEER.

From a country paper I learn that a white deer was killed recently on a private game preserve in the Adirondacks and that the owner of the preserve, a resident of Glens Falls, N. Y., sent the skin as a present to the Superintendent of State Forests. The recipient of the skin of the deer, whose fatal beauty made it a shining mark for the hunter, is not blamable in this pathetic business; while the owner of the preserve may be equally innocent, the animal having been killed, probably, by some unthinking employee.

But the irony of it! The loveliest, rarest creature in the wilderness is killed on a game preserve, and its skin adorns the office of the guardian of our State forests! Well may the deer include in their orisons: "Preserve us from our preservers!"

The news article stated that only 2 white deer have been seen in the Adirondacks

in 30 years. Had the dull witted individual who shot the animal contrived to capture it alive, a feat not impossible, it would have brought a fabulous price.

Herein lies the pity of it, that notwithstanding the wide educational effort put forth by humane people, nature lovers and scientists, to protect and preserve rare animals and birds, still the average man or boy can not repress his desire to kill every rare or beautiful thing in the animal world. The rarer and more beautiful, be it cardinal bird or blue heron or silver fox or white deer, the surer its fate. Herein we confess our uncivilization or mal-civilization, for the Indians regarded the white deer with reverence and preserved it. How much pleasure might have been afforded if this snowy vision of grace and harmlessness could have been allowed to live year after year in the Adirondacks, tamed perhaps so as to haunt the neighborhood of camps and hotels, where thousands could have enjoyed a glimpse of it. Perhaps it is impossible for some persons to believe in beauty until they slay it.

If our rare and beautiful animals and birds are to survive for coming generations to admire, it must be through the practice of individual forbearance, as well as the dissemination of sensible and enlightened ideas.

C. H. Crandall, New Canaan, Conn.

A CONVICTION IN MALONE AT LAST.

An important case, from the standpoint of public welfare, was that of the People vs. Wm. B. Trowbridge, Jacob C. R. Peabody, Sautelle Prentiss, John Rork, and Alvah Bennett. The 3 former are city men who went to the Adirondacks to hunt, and the latter 2 were their guides. They organized a hunt at Grass pond in Brighton, going into camp there, where they remained 8 days. Four dogs were brought into camp, among them 2 beagles. The men claimed they were hunting rabbits with the dogs, but it was proved that they killed one rabbit and 2 deer. The penalty for taking dogs which will run deer into a forest which deer inhabit is $100. The jury found a verdict for 5 penalties against the parties, covering 5 separate days, amounting to $500. The deer were killed in the open season, the offense being the putting out of dogs in the woods. It is so seldom that verdicts for penalties in game law cases are rendered that this one should receive more than ordinary notice. It appears the dogs were not of the kind usually employed in hunting deer and this verdict should prove a warning to those who take into a forest bird dogs and rabbit dogs which will run deer. Wardens Pond and Vosburgh deserve much credit for the manner in which they worked up the evidence in this case. There have been many complaints of dogging deer in the Adirondacks, but it has been difficult to secure evidence. Hotel men and others interested in the protection of game should make the work as easy as they can for the protectors by furnishing them with information, for only by the insistence on the part of everybody who loves the woods that the laws shall be observed, can these sports be preserved. This verdict is a great victory for the State in a difficult and complicated case.—Exchange.

Malone has long been known as a hot bed of law breakers and it is indeed gratifying to learn that at last a herd of Malone swine have been rounded up and the members thereof compelled to liquidate. Several strong cases have been made up by friends of game protection in or about Malone within the past few years and presented to the officers for action, but these officers and the attorneys in that town have declined to prosecute people whom they term their personal friends. It seems that the men named in the foregoing article have no influential friends in or about Malone and so they caught it in the neck. Now that an example has been made I trust that no more favors may be shown to law breakers in that vicinity because of friendship or political pull. The law should be no respecter of persons. The banker or the mill owner or the railroad officer who violates the law should be dealt with exactly as the farm laborer or the woodchopper is when he goes against it.—EDITOR.

PRAISE FROM SIR HUBERT.

I have lived 77 years and now wish to speak to my younger fellow sportsmen in behalf of that great little magazine RECREATION. In my time I have read most publications devoted to the sportsman's life, but RECREATION is far above all others. Its noble work will be more and more fruitful as time advances and its doctrines will be endorsed by all before many years. Through its efforts the game which a few years ago seemed doomed to extermination will be preserved.

I think it was in the fall of 1857 that I killed 92 prairie chickens with a muzzle loading gun without being called a game hog, for that word was then unknown. Game was in such abundance, that pot hunting was a paying business and an honorable occupation. It was about 7 miles North from where the town of Minerval now stands that I built my shanty, which I occupied 18 years with no one but a fugitive Indian for a neighbor.

Brighter heads than mine discovered that something should be done to protect game. Consequently RECREATION was born and the League of American Sportsmen was formed. Its arguments soon convinced and converted me. From an old pot hunter I became a protectionist. I must admit that I still approve of spring duck shooting for the good reason that it is all the duck shooting there is in this locality. We have no water here in the fall and you know we all like to have a little of the pie. Nevertheless, I must say RECREATION is the greatest of all magazines for sportsmen. I wish it success to the limit and hope it will soon be found in every home in the United States. Good-bye, dear friends, in

case you never hear from me again; follow RECREATION, be true sportsmen, and I will meet you all again in the happy hunting grounds.

Old Leo, Atkinson, Ill.

DEFENDS THE COCHRAN PARTY.

In your May issue of RECREATION on page 371, in an article entitled "Weak-kneed Justice," your correspondent quotes a news item which appeared in the daily papers last fall as coming from Richmond, Va., and some caustic comments by your correspondent and yourself follow.

That item contains a gross misstatement of facts. I was a member of the hunting party referred to. The facts are these: Senator Cochran and his friends were invited by Mr. Howard to hunt over certain lands which belong to a well known gentleman of Middlesex county, Va. The party were the guests of Mr. Howard and a member of the family of the owner of the lands. A part of this land had been leased by the owner to a man by the name of Burton for farming purposes, but reserving to the owner and his friends the right to hunt on these lands. The party hunted one day on these lands and were found there by Mr. Burton, who swore out a warrant against them for trespass in hunting on posted lands.

That was the case which was before Squire Davis at Saluda. The production of the lease and the evidence of the fact that the party were there as guests of the owner of the land, who also possessed the right to hunt over the same for himself and his friends, caused Squire Davis to discharge the defendants. The party were not shooting game out of season, as the season for quails was then open in Middlesex county, Va.; and they were not charged with shooting game out of season. All of the party are law-abiding citizens, as well as good sportsmen. An inquiry at Saluda or any other part of Middlesex county will confirm my statement of these facts.

John G. Reading, Williamsport, Pa.

NOT LAWFUL TO KILL ROBINS.

I am an old reader of RECREATION and am in full sympathy with your good work.

Some friends claim that should a robin be found eating their cherries they would have legal right to kill the bird and that it would be impossible to convict a person for so doing. Is that the fact?

H. C. Howard, Groton, N. Y.

ANSWER.

There is a law on the statute books of this State prohibiting the killing of robins at any time and under any circumstances. There is no provision in this statute in favor of a man who owns a cherry tree or a grape vine. It is true that robins and other birds sometimes eat fruit, but a man has a mighty small soul who would begrudge one of these birds a few cherries or grapes. At other times of the year these same birds are busy eating the bugs and worms off the fruit trees and grapevines and out of the corn fields and wheat fields. It is estimated that each insectivorous bird consumes one bushel to 2½ bushels of bugs and worms in the course of its life. In spite of this there are men everywhere so stingy, so utterly ignorant, and oblivious to the beauties of nature and to the rights of dumb creatures that they would kill robins and meadow larks and even mocking birds for carrying off even one cherry from their trees.—EDITOR.

MICHIGAN NEEDS LAW AGAINST FERRETS.

J. Niffenegger and one Clark, whose first name I do not know, killed 47 rabbits in 3 hours. They used a ferret and a hound. Niffenegger is owner of a market here and a member of the city council. No attention is paid to the game laws. Quails were shot a month after the season closed.

M. P. C., South Haven, Mich.

I wrote Niffenegger and here is his reply:

We did get 47 rabbits but it took us longer than 3 hours. Rabbits are getting well cleaned up; it is hard to catch more than 10 or 15 a day now.

J. Niffenegger, South Haven, Mich.

Unfortunately there is no law in your State to prohibit the use of ferrets in hunting rabbits, but I hope your Legislature will enact one at its next session. Meantime I will be glad, the next time you go nosing round a rabbit burrow and stuffing your dirty rodent into it, if some fellow will get a drop on you and fill your clothes full of B B shot. No law that is ever likely to be enacted will be drastic enough to fit such a case as yours. The only means of inflicting proper punishment on such swine as you is either the shot gun or the horsewhip.—EDITOR.

LAW DOES NOT EXEMPT PROSPECTORS.

Would it not be well to mention in RECREATION that prospectors are subject to game laws like the rest of us? RECREATION is widely read in the West and I know of no better way to disseminate the information. The genuine prospector usually attends to his business and does not bother the game; but other parties, believing prospectors exempt under the game

laws, go out after game, and carry a pick and shovel, and claim to be prospectors.

W. S. Bates, L. A. S., 143 Chicago.

It is a lamentable fact that a great deal of game is killed illegally by pretended prospectors. A legitimate prospector is not exempt from the game laws in any State, as far as I know, but it is the custom of nearly all prospectors and ranchmen in the mountain States to kill game for their own meat, even in close season. This is not right, and such men may be prosecuted at any time. The difficulty would be in getting a jury that would convict a real prospector or a poor homesteader for having killed a deer when he needed the meat. If on the other hand a man merely pretends to be a prospector and kills a game animal in close season he should be punished for it and there would be little difficulty in inducing a jury to convict a man under such circumstances.—EDITOR.

NOT FIT TO LIVE.

Ed. Davenport killed his 60th deer Saturday and then swore off for this season. If there is a deer hunter in the whole country who can equal this record he has something to brag about.—Uvalde (Tex.) Leader News.

On receipt of above clipping I wrote the person mentioned, asking if the report was true. He answered as follows:

I am in receipt of your favor asking if the report be true about my killing 60 deer last season. Will say it is. I killed all 13 miles North of my town, Sabinal. Of the 60, 54 were killed running. I also killed 28 turkeys.

Ed. Davenport, Sabinal, Tex.

It is strange that the ranchmen of Texas should have expended so much money in poisoning, trapping and shooting coyotes and wolves and should still allow so vile a pestilence as you to live. It is a great pity that some old wolfer has not waylaid you long ago and fixed you so daylight could shine through you. It is to be hoped someone who is interested in saving whatever little game is left in Texas may do this in the near future.—EDITOR.

GRUNTERS CAN NOT SCARE RECREATION.

Pendleton, Oregon.

Editor RECREATION:

Having been a constant reader of RECREATION 5 or 6 years, I take the pleasuse of giving our Western sentiments to your readers. This does not come from one you have roasted, but the cause is we are all awfully tired of your roast pork. RECREATION used to be a pleasure to what it is now. We are as much or more so from your preaching it and your monthly roasts only adds fuel to a bed of live coals. So to put RECREATION on her level again cut out all your game hog business.

The sportsmen are going to serve their own ideas to suit themselves and not listen to a far away coacher like you pretend to be. Your photographs and roasts only keeps the ball a rolling. The larger the hog the more he grunts, so take warning.

J. W. Lane.

All right, Lanie, you have had your grunt and I hope you may now feel better.

As for RECREATION it will keep right on roasting pork as long as such brutes as you are at large. If you don't like it quit reading it and subscribe for the A. D. G. H.—EDITOR.

LIKES ROAST PORK.

I am an ardent admirer of RECREATION and have not missed a copy since October, 1897. Am in hearty sympathy with your fight against game extermination. The squealers who condemn your methods are chiefly those who are the hardest hit; for example, "Mossback," who tries to be funny in his articles in a cheap magazine published in Denver. I am pleased to see you so firmly intrenched and hope your good work will go on.

Last summer I bought a King canvas folding boat and for general utility it has no equal. It is an 11-foot special ducking boat, fitted with a coaming, is a neat, light model, with longitudinal and diagonal steel ribbing, and has a large carrying capacity. The price was low and the boat is certainly all its makers claim for it. I have given it many severe trials, on pond and stream. It makes an admirable blind when shooting near shore and as it rides low in the water is excellent for jumping ducks on a stream. As it is very stable it is good to cast from while fishing either on lake or stream.

J. E. Kirkbride, Boulder, Colo.

GAME NOTES.

By the July number I see you have been away in the mountains for your health. I am sorry you had to go and am glad you are able to report improvement. A year ago you told me how you slept with a scratch pad and pencil under your pillow, made notes as thoughts impressed themselves on your brain, and often found a batch of 10 or more in the morning on the floor. I thought you were playing pretty close to the cushion. Cut it out. We want you to live a long while yet. When you go to bed, leave "roast pork," L. A. S., "Paddy," etc., etc., behind. No man, even yourself, can burn the candle at both ends, indefinitely. I do not write this as a preachment, but simply to let you know that I, in common with the rest of

the RECREATION host, am more than interested to keep you in good working trim.

Dr. E. B. Guile, Utica, N. Y.

Game is increasing in this part of the State. Five years ago quails were almost extinct; now they are fairly abundant. Grouse have about disappeared from the level country, though that is due, I think, more to the cutting away of the forests than to excessive hunting. In the mountains grouse are still plentiful. It is a pity our deer law does not forbid the killing of does. I think the fee for a hunting license is in many States altogether too high. If put at $5 it would produce enough revenue to protect game and at the same time would not bar a poor man from a chance for sport.

M. J. Keans, West Middletown, Pa.

You are doing a great work for game protection. I wish the South was more progressive in the matter. Still, I think our people will gradually fall in line. Even now we have a few as thorough sportsmen as can be found anywhere. Quails are abundant here and we have a few deer, turkeys, and squirrels. If our game had a fair chance, all kinds would become plentiful. As it is, deer are hounded in summer and fish are netted and dynamited. Robins and other birds are killed by thousands in their roosts at night.

D. L. Smith, Brookhaven, Miss.

November last Messrs. Duke, Merrill, Eckler, and Neagles and I, old companions afield, revisited a favorite hunting ground near Dollarville, Mich. We were met at the station by a teamster and taken 20 miles into the wilderness. The first day we watched well known runways. Eckler killed a good buck and I got a shot at a big 5-pointer. The second day we killed 4 deer, still hunting. There is excellent hunting and fishing all along the Grand Rapids & Indiana railroad.

C. H. Weisner, Grand Rapids, Mich.

Will you allow me to correct a false impression created by a correspondent of RECREATION, Mr. N. W. Wright, of Selma, Ohio. He says in April number, 1901, under the heading "Hunting in Arkansas," "Go to Cairo over the Iron Mountain. Ten miles from Cairo you come to the headwaters of the St. Francis where you can unload your boat, etc." As a matter of fact, St. Francis river is more than 75 miles from Cairo. The headwaters are 130 miles Northwest from Cairo.

A. G. Powers, Dayton, Ohio.

I am sure the L. A. S. can do a lot of good in this section of the country. There were few violations of the game laws here last winter and, in consequence, deer and fish are plentiful. Six deer came within 400 yards of our house and let a man walk up to within 30 steps of them before they moved. Guess they knew there are a few members of the L. A. S. in this locality who are ready and willing to pounce on any man who would kill one of these deer.

A. L. Smith, Kingston, Ida.

Quails were more numerous in this locality last season than for several previous years, and, as most of our sportsmen are now members of the League, the abundance of birds is accounted for. On the last day of the open season I saw several unbroken covies, so the prospects for this fall are unusually good. During the mating season I could hear the call of quails whenever I rode into the country.

W. K. Decker, Tarpon Springs, Fla.

RECREATION is all right and its work for game protection deserves the hearty commendation and earnest support of every public spirited American citizen, whether sportsman or not. Enclosed find $1 for which please send me RECREATION for one year from date.

H. D. Grose, Ann Arbor, Mich.

I agree with Wade McIlrath that the grouse of Ohio should be protected for a term of years. We have an ideal grouse country, but birds are exceedingly scarce. Quails wintered well, and with good nesting weather should be abundant this fall.

W. D. Held, Newton Falls, O.

Elk have more than held their own the past year in the Jackson Hole country. Observers on the winter ranges report that the animals are in splendid condition after an unusually mild winter and much more numerous than in April, 1901.

T. R. Wilson, Alta, Wyo.

I greatly admire and fully endorse your crusade against the wholesale butchery which is so often wrongfully called sport. Every right thinking person should be glad to join in a vote of thanks to you.

Mrs. A. S. Murray, Goshen, N. Y.

In the Province of New Brunswick big game is well protected and is increasing, but small game is not looked after at all. In the other Provinces, especially in Quebec, big game is not well protected.

Henry D. Chisholm, Dalhousie, N. B.

FISH AND FISHING.

ALMANAC FOR SALT WATER FISHERMEN.

The following will be found accurate and valuable for the vicinity of New York City:

Kingfish—Barb, Sea-Mink, Whiting. June to September. Haunts: The surf and deep channels of strong tide streams. Baits: Blood worms, shedder crabs and beach crustaceans. Time and tide: Flood, early morning.

Plaice—Fluke, Turbot, Flounder. May 15 to November 30. Haunts: The surf, mouth of tidal streams. Baits: Shedder crabs, killi-fish, sand laut. Time and tide: Ebb, daytime exclusively.

Spanish mackerel—Haunts: The open sea, July to September. Baits: Menhaden, trolling—metal and cedar squids.

Striped Bass—Rock Fish, Green Head. April to November. Haunts: The surf, bays, estuaries and tidal streams. Baits: Blood worms, shedder crabs, Calico crabs, small eels, menhaden. Time and tide. Night, half flood to flood, to half ebb.

The Drums, Red and Black. June to November. Haunts: The surf and mouths of large bays. Bait: Skinner crab. Time and tide: Day, flood.

Blackfish—Tautog, April to November. Haunts: Surf, vicinity of piling and old wrecks in bays. Baits: Sand worm, blood worm, shedder crabs, clams. Time and tide: Daytime, flood.

Lafayette—Spot, Goody, Cape May Goody. August to October. Haunts: Channels of tidal streams. Baits: Shedder crabs, sand worms, clams. Time and Tide: Day and night flood.

Croker—July to October. Haunts: Deep channels of bays. Baits: Shedder crabs, mussels. Time and tide: Day, flood.

Snapper—Young of Blue Fish. August to November. Haunts: Rivers and all tide ways. Baits: Spearing and menhaden; trolling pearl squid. Time and tide: Day, all tides.

Sheepshead—June to October Haunts: Surf and bays, vicinity of old wrecks. Baits: Clams, mussels, shedder crabs. Time and tide: Day, flood only.

New England Whiting—Winter Weak-fish, Frost-fish. November to May. Haunts: The surf. Baits: Sand laut, spearing. Time and tide: Night, flood.

Hake—Ling. October to June. Haunts: Open sea surf, large bays. Baits: Clams, mussels, fish. Time and tide: Day and night, flood.

Weak-fish—Squeteague, Squit. June to October. Haunts: Surf, all tideways. Baits: Shedder crabs, surf mullet, menhaden, ledge mussels, sand laut, shrimp. Time and tide: Day and night, flood preferred.

Blue Fish—Horse Mackerel. June to November 1st. Haunts: Surf, open sea and large bays. Baits: Menhaden, surf mullet and trolling squid. Time and tide: Daytime; not affected by tides.

TROUT FISHING IN LAKE RONDAXE.

Albany, N. Y.

Editor RECREATION:

The trout fishing season opens here April 16, but our fishing trips commence much earlier. What I mean by this is that toward the last of March my father comes to the store some bright, warm day, with a peculiarly happy look, opens the day with an extraordinary greeting, walks behind the counter, smiling and making remarks about the early Spring, etc. Then come the expected accounts of former fishing trips, of beautiful catches of brook trout, and a little brag, of course, with probably some useful information and advice.

Later, follows the trip to Lake Rondaxe, on the North branch of Moose river, Herkimer county, in the Adirondacks. It is a small lake but one of the prettiest. On the South shore, at the foot of a mountain, is a large log cabin, deserted by lumbermen, which we renewed and made comfortable. In there, on cold April nights, the happy anglers assemble around the fireplace and overflow with talk.

The party this year consisted of my father, Otto H. Fasoldt, called the Boss, Mr. H. D. Hawkes, my brother Dudley and me. Our 2 days were precious and will remain long in our memory. The first day it rained, but how could we stop for that? Preparing for the worst we went forth and "when the wind blows from the West, the fishing is at its best." The lake is preferable to the river or the brooks.

After a few favorite spots are tried with the fly, we resort to trolling with the meek and lowly worm and we find this much more attractive to these uncultivated fish. A joyous chuckle follows the first series of quick jerks, and then the play. Five minutes elapse before he is conquered, after numerous attempts to get him near the net, and Hawkes is the possessor of a beautifully spotted and colored 14 inch trout. He is not immediately placed in the basket. No, No! The weight is guessed, and the meal is contemplated, but not quite fulfilled.

Meanwhile the Boss eagerly holds his rod in readiness to gobble the trout he expects to attack his trailing bait. A slight tug is felt, but not repeated, strange to say. Reeling in, the Boss finds, to his disgust, that the entire bunch of worms is gone. He must artistically rebait. A few minutes pass; again the quick jerks and a tug that nearly shatters Hawkes' nerves. The way he handles the fish makes the Boss laugh. Hawkes is proclaimed a corker. He refuses to drown the fish and tries to land it immediately. It took him nearly 10 minutes to get it into the net! Sixteen inches is the length of the trout and the weight probably 2 pounds or more. Certainly Hawkes should be satisfied. No, he would take these home and catch more for the table at camp. Two more he got, each 12 inches in length.

Then the Boss landed 2, 14 inches and 12 inches, and that ended the catch. The fish would bite no more. Dudley and I had equally good luck, and I, also, secured a 16 inch beauty.

The next day was one of the finest that ever dawned. For a change, we tried still fishing. It was remarkable how hungry

the trout were. It seemed to be my lucky day. I was alone in a boat within sight of the Boss' boat. I was hardly settled when a big trout took hold. The battle was long. My right arm was well tired before he was landed. He measured 17½ inches and weighed 2½ pounds. The Boss spied me standing in the canoe, the rod waving back and forth, and in they came. He dropped his anchor as close to me as space would allow. This I did not object to. I shortly hooked another large trout, weighing nearly 2 pounds and measuring 15 inches. The Boss and Hawkes remarked that my trout were the last 2 big fellows left, for they could not reach the 14 inch mark after that; but they had caught 3 or 4 in the early morning.

At one time I hooked a trout and exclaimed that I had a big one. At the same moment the Boss pulled up with a similar statement. We soon discovered that but one fish was the cause, a 12 inch fellow. Who was entitled to it was impossible to determine, it having swallowed both hooks.

James S. Fasoldt.

A HOG IN YELLOWSTONE PARK.

A sportsmen's journal, published in Chicago, recently printed one of the old style fishing stories written by one W. B. Goodsell, in which he tells how he slaughtered trout in the Yellowstone National Park in the summer of 1901. He says among other things:

"I found, by a stop of one day, 42 pounds of magnificent grayling and trout, the former predominating, and varying in size from three-quarters of a pound to 2 pounds' weight. Occasional doubles showed one of each species. Between 10 o'clock a.m. and 5 p.m. I had filled my 20 pound creel, my fishing coat pockets and a willow crotch, until I quit, just as the best hours had arrived for the sport, but with all I could lug to the waiting team.

"The evening of the 3d day brought us to the Lake Hotel, at the foot of Yellowstone lake, where in an hour I landed 11 trout, shown in the accompanying illustration, which weighed 15 pounds; and had not a soaking rain set in, I could have more than doubled the catch."

And again he says:

"Leaving the hotel at 8 o'clock a.m. we drove 14 miles up the river to the rapids, and returned in time for supper, with 83 trout which weighed 44½ pounds.

"The Government has been stocking these 250 miles of streams since 1889, and neither novice nor expert can fail to secure his full complement of trout in any of the 15 or 20 noted streams, all easy of access."

The editor makes not a word of protest against this butchery. On the other hand, he reproduces 2 photographs, one of which shows this old fish hog standing up by a string of 33 trout, which according to the legend sketched on the picture, weighed 44½ pounds.

It is true the Government has been stocking the streams in and about the Park for several years past, with trout; not in order that a few bristlebacks may go there and kill 3 or 4 times what they should, but that the decent anglers may go and have a few hours or a few days of decent sport.

As showing you the feeling of gentlemen on this subject, a prominent business man of St. Paul clips and sends me the article in question, together with a letter in which he says:

"Please note the article entitled 'Trout Fishing in Yellowstone National Park,' by W. B. Goodsell. In one place he speaks of a fisherman's paradise, and then in another place he tells about catching 42 pounds of trout and grayling, and in another about catching 33 trout, weighing 44½ pounds, in 4 hours' actual fishing; and he even has the nerve to have himself shot with a camera, with his last mentioned catch. He should have been shot with a cannon load of canister before he got in his deadly work. And mind you, this article appears in a so-called sportsmen's paper.

"Is there not some limit as to the number of trout that one may take in a day in the Yellowstone National Park? I happen to be in a position to know something about the number of tourists who make the park trip each season, and if a few hogs, like the above mentioned, get in their work for a year or 2 more the result can readily be surmised."

The trouble is that the publisher of the aforesaid so-called sportsmen's journal is so hungry for dollars and for copy that he would not dare criticise his contributor lest he might lose a subscriber. Furthermore, he might offend this Goodsell to such an extent as to lose a possible story at some future time. It is a great pity that all editors and publishers have not the nerve to roast a man who makes a beast of himself, even at the risk of losing a subscriber or a contributor.

We must see to it that Congress passes a law next winter, placing a limit on the number of fish or the number of pounds of fish which any one man may take in a day in any waters controlled by the General Government.

FISH IN MINNESOTA.

Hopkins, Minn.

Any movement that has for its object the preservation of the game with which this country at one time abounded should

have the hearty support and co-operation of all good citizens, whether they take an active part in hunting and fishing or otherwise.

Of course the pleasanter way to bring about this result would be to educate the people up to the point where they could see the advantage of good laws and the necessity of preserving and enforcing them; but in some cases this cannot be done and it is then necessary to resort to harsher methods.

There are those who are too closely related to the hog to benefit by any effort at education. They kill fish and game just to see how many they can kill. They would take black bass with a scoop shovel if they could, and think nothing of potting a duck or a quail. Such men do not care if the game is all killed one year or the next, provided they may do the butchering. I know several places where bass were plentiful a few years ago, but an honest angler can fish a long while in those places now without finding any evidence that fish ever existed there. If you make inquiry you will hear that Mr. Berkshire Hog, or Mr. Some Other Hog used to catch 200 or 300 bass in a day in those waters.

Within the city limits of Minneapolis I can point out lakes where bass and pickerel were shot last spring and where set lines are out at the present time. In one of those lakes 15 years ago I could pick up 4 or 5 bass almost any day, but a man will stand a poor show with rod and reel there now. I fished the lake half a dozen times last summer but caught only one bass; yet the razorback that puts out a set line boasts of the number of bass he takes, though he does not admit that he takes them that way. Sometimes his children do.

Even now the fishing in this State is excellent and I do not think I exaggerate when I say there are more fish and more opportunities to fish in Minnesota than in any other State in the Union.

In the Northern part of the State lake trout abound and often reach a weight of 25 pounds. There are also salmon trout, whitefish, sturgeon, pike and pickerel in Lake Superior. In some of the smaller lakes of St. Louis, Lake and Cook counties there is a small land-locked lake trout that weigh up to 4 pounds. Black bass, both large and small mouth, rock bass, silver bass, and trout abound, one variety of trout having a white belly and another a bright golden belly. These lakes also contain silver herrings and sisco, or deep water herrings; muskalonge, buffalo, sheephead, bullhead, catfish, croppies, redhorse, suckers, stonerollers, bluegills and 2 or 3 other varieties of sunfish, perch, dogfish and German carp.

The carp have been planted by the hatcheries and multiply rapidly. They are worse than suckers at devouring the spawn of decent fish and should be killed off as soon as possible. No doubt the intention of the authorities was good in placing German carp in American waters but that does not lessen the evil. In Illinois they have practically exterminated the bass and as no self-respecting angler would either catch or eat a carp I do not see anything but injury in planting them.

The smaller streams of this State are full of chub and shiner minnows, the best minnows for bait that I know of. In putting a shiner minnow 1¼ inches long on a hook a few days ago I discovered that it was full of spawn. This was a surprise to me as I supposed they were not mature until they were 3 or 4 inches long.

Washata.

THEY SHOULD KNOW BETTER.

Enclosed is a slip, cut from our local paper the *Acadian*, concerning Mr. R. E. Harris. I wish you would roast Mr. Harris. Trout are not plentiful about here, and such a catch is an outrage. Mr. Harris is a merchant of Wolfville, and should have known better.

S. W., Wolfville, N. S.

Mr. R. E. Harris has had on exhibition a splendid display of trout, the fruits of a fishing trip. He and his companion, Dr. Saunders, of Kentville, succeeded in getting 210, many of which were large. A basket containing 30 weighed 47 pounds. The *Acadian* extends thanks to Mr. Harris for a generous share of the proceeds of the trip, and wishes him equally good luck next time.

I wrote Mr. Harris and Dr. Saunders, asking if this report was true. They replied as follows:

Yes; my friends, Dr. Saunders and A. S. Harris of Kentville and I caught, May 5, 210 trout, weighing ¾ of a pound to 1½ pounds. In less than 2 hours we caught out of one pool 125 trout that weighed the same number of pounds. You might send me RECREATION for the coming year. I have taken it before but had it stopped some time ago.

R. E. Harris, Wolfville, N. S.

The report is true. A friend and I caught 210 trout in one day. They weighed ½ pound to 1½ pounds each. This same friend and I at a previous time caught 125 pounds of trout in 2 hours. Not bad sport was it?

Louis Saunders, Kentville, N. S.

It seems that Harris has not read RECREATION long enough to have shed his bristles yet. Possibly the Doctor may never have read it. I advise both men to read it carefully hereafter, in order that they may know what decent men think of fish hogs.—EDITOR.

NIBBLES.

Enclosed I send you clipping from the *Oil City Derrick*. It served them right?
W. S. Beers, Petroleum Centre, Pa.

Sisterville, W. Va.—While dynamiting fish at the head of Russell Island, George Chambers and Ed. Engemire lost their lives and Phil Roush lost an eye and was so badly hurt otherwise that his condition is critical. The men were in a skiff when one of them carelessly threw a lighted match among some dynamite sticks, causing an explosion, with the above results.

Occasionally a man works out his own punishment. In many cases courts and officers of the law are unable to apprehend dynamiters. Many a stream and many a lake in the country has been completely cleared of fish by the use of this pest of modern days. I am always glad, therefore, when I hear that a man who has been dynamiting fish has been blown out of the water himself. I wish all such vandals might share the fate of these men.—EDITOR.

Can you inform me where some small mouth black bass can be bought? What would they cost per 1,000? We want to stock a small lake, which is fed by springs.
George Schwartzkopf, Jr., Columbus, Ind.

ANSWER.

The easiest and best way to get small mouth black bass for stocking a small body of water is to seine them from some stream in your neighborhood. This species is doubtless common in the White river near Columbus and in all its tributary streams. Get permission from Mr. Sweeney, your State Fish Commissioner and one of your fellow-townsmen, to use a seine for this purpose. Put the bass in a large tub of cool water. You do not need more than 50 or 100. In fact, 25 will be ample. The probability is, however, your pond is better suited to the large mouth black bass, which is the better pond fish. You can get them in any of the bayous along the river. —EDITOR.

A TROUT HOG.

The trout season opened Wednesday, April 16, and a few good catches are reported. George Lambert took 105 out of Trout brook and others filled their baskets from different streams.—Downsville News.

One reason there are no more trout in the streams is because of hog fishermen. One of them over in Delaware county took 105 speckled trout out of Trout brook the 16th.—Oneonta Spy.

Any man who will catch 105 trout in one day is worse than a hog, for a hog does not want more than he can hold. If the Deacon of the Dairyman will visit his mirror he may see an exception. There are a plenty more.—Unadilla Times.

A man who is so much lower than a hog that he will take 105 trout, as scarce as they are, deserves lynching.—Deposit Courier.

A party of fish hogs carried away from our neighboring stream 350 trout in 2 days. The Gazette force is exempt from all this, as suckers and redfins have been their only catch so far.—Delhi (N. Y.) Gazette.

Where did these editors learn to roast pork? Can any one guess? Certainly not from the A. D. G. H.; nor from any one of half a dozen other alleged sportmen's journals I could name.—EDITOR.

J. A. Cooper returned yesterday from a fishing trip in Walker valley. He caught nearly 400 trout.—California paper.

To my inquiry as to the truth of this report Mr. Cooper replied as follows

April 15 I caught 160 trout, April 16, 171, and the morning of the 17th 48; total 378. I fished in a branch of Russian river, in Mendocum county and did not fish more than 6 hours any of the days. The trout were ordinary California brook trout, 5 to 11 inches long. I had many 8 to 10 inches.
J. A. Cooper, San Francisco, Cal.

It appears from Mr. Cooper's letterhead that he is one of the Commissioners of the Supreme Court of the State of California. By his own confession he disgraces himself and the State he represents in his official capacity by slaughtering trout. It is hoped the sportsmen of California will see to it that Mr. Cooper is retired to private life at the first opportunity.—EDITOR.

We have a small lake near here in which there are large mouth black bass, but they refuse to strike anything. I have tried jackfish and flies; also artificial minnows; but I have little success. Can you suggest any tackle with which I can hook these bass? What is the best bait for bream? Our water is clear and is 3 to 4 feet deep.
A. Darder, Anniston, Ala.

ANSWER.

Anglers in the South sometimes have good success using cockroaches when fishing for large mouth black bass. Cockroaches are also good for bream. Try them. Try also small live minnows, grasshoppers, white grubs, and artificial frog. Moderate flies of dark colors ought to prove effective. —EDITOR.

The enclosed item appeared in the Lincoln *Evening News* and is one of a number which prove the efficiency of our game warden.
A. R., Lincoln, Neb.

Two desperate violators of the law were surrounded by persistent deputy game wardens near Papillion Saturday night and unceremoniously thrown into prison. The heroes of the fray were chief deputy game warden Simpkins, his faithful deputy Nick Carter, and fish commissioner O'Brien.

The officers not only captured the poachers with several sacks filled with fish, but also gathered in a wagon load of nets, hoops and other paraphernalia. These were stacked up on the bank of the creek and burned. The fish were all liberated.

GUNS AND AMMUNITION.

Anybody can keep shooting all day, but it takes a gentleman to quit when he gets enough.

SATISFIED WITH THE SAVAGE.

I wish to say to A. G. Bevan that I used a Savage 30-30 last fall in Maine and could not wish for a better or stronger shooting weapon. The balance is perfect; the action safe and sure; and in every way it is far superior to any other gun I ever owned. Mr. Bevan will make no mistake in getting a 1900 model, 24 or 26 inch octagon barrel.

A few pointers on the care and use of that gun may not come amiss. Never put heavy oil, that will congeal in cold weather, into the magazine; it will stop it from working, as I found to my sorrow last fall. I was hunting on a hillside when I saw 2 foxes in the ravine below me. After firing at them I tried to get another shell in the chamber but the oil had thickened and the magazine failed to work. Just then a big buck came out of the heavy timber about 60 yards away and walked off unharmed. I lost no time in returning to camp and getting the oil out of the magazine.

In 1900 I was hunting in the same locality, with a '96 model Winchester, 6½ pounds, half magazine, 30-30, and found it useless with full load shells. It would whip up at least 2 inches at the muzzle, and I became disgusted with it after missing 3 of the best shots at deer that I ever had. I wrote to the Winchester people about it and was told they had made only a few of that kind and none of them were warranted. I was surprised that such a reliable firm should let a gun they could not warrant in every way leave the factory.

My Savage will shoot through ¼ inch boiler plate with soft nose bullet, leaving a hole nearly ½ inch in diameter. For a light load I use 8 or 10 grains Dupont rifle powder; 100 grain bullet, 8 parts lead to 2 parts of tin. This does good work on woodchucks and small game up to 200 yards. I always lubricate the bullets with bay wax. If the gun shows leading, shoot 2 or 3 metal patched bullets to free it from lead. Turpentine is best for cleaning a dirty gun. Saturate a woolen cloth with it and pass through barrel 5 or 6 times. Then wipe dry, use vaseline liberally, and your gun will never rust.

I think the U. M. C. people could improve their 30-30 bullet by extending the jacket farther up on the bullet. At present there is too much lead exposed and bullets sometimes mushroom or scatter in the air, especially in long distance shooting.

We had 3 Marlins in our club in 1900. They were the cause of more profanity than all other annoyances in camp put together. Paddy ought to close his trap and jump into the nearest stream, taking his would-be gun with him.

J. H. Nesbitt, Cleveland, O.

In April RECREATION A. G. Bevan, Martinsburg, Ind., asks for information concerning the 30-30 Savage. I have one of these guns. In accuracy and penetration it will equal the 30-30 Winchester every time. In their 1902 catalogue the Savage people say the 30-30 hard nose bullet will not penetrate more than 10 inches in wood because the metal cover mushrooms. A trial convinced me this is a mistake. Setting up a piece of tough fir at 15 yards, I shot into the end of it. On splitting the stick open I found the bullet had penetrated 25 inches, and, excepting a small dent in the end, was as perfect as when it left the barrel. How this rifle will compare with the .303 I am unable to say; the latter cartridge having the heaviest bullet will probably give the most penetration. As to accuracy, velocity, and trajectory, I do not think the .303 will excel the 30-30.

Roy C. Rogers, Garrison, Mont.

In April RECREATION A. G. Bevan asked if the 30-30 Savage is as good as the Winchester. I greatly prefer the Savage. It is neater and better balanced, and will outshoot any other gun of the same caliber. As compared with the Savage .303, I believe there is no difference either in accuracy or in smashing power. If you are out for big game take a Savage 30-30 and U. M. C. soft point bullets.

J. G. Parr, D. D. S., Martins Ferry, O.

LIKES THE MARLIN AND SEMISMOKELESS, BUT—.

Los Angeles, Cal.

Editor RECREATION:

I have been much amused from time to time by the gun talk in your admirable magazine. It is entertaining and instructive despite the apparent contradictions. I think I can understand why Mr. Nelson loves his Remington and why Mr. Van Dyke sticks to his 22 even after having straightened it over a log. I love any good gun, no matter whose name is stamped on the barrel.

My special favorite is a Marlin 22 (please don't laugh) fitted with Lyman sights. It is the prettiest and most accurate gun I ever looked over. Using Winchester 22 long smokeless cartridges it is a wonder.

Last fall 2 friends and I spent 30 days in camp near Crater lake, Oregon, and the little 22 furnished more dinners than any other gun in camp. In fact, its only rival was a 22 Stevens in the hands of my friend Best. Our large guns remained in their cases, because we were in a country where the noiseless 22 was just the thing.

The only drawback to my pleasure was the fact that my pet 22 developed a cranky streak. The extractor slipped over the heads of the cartridges and left the empty shells sticking in the barrel, and the action jammed. Examination showed the shells slightly swelled near the head and developed the fact that the breech block did not hold the shell firmly in place. It let the shell slip back just enough to allow the portion next the rim to swell and jam the action. The gun was but 2 months old, and I blamed myself for the trouble, thinking it due to using smokeless ammunition; but as I talked the matter over with the boys in camp I found both of them had discarded Marlin rifles on the same account. I had thought of writing the Marlin company about the matter, hoping to be able to set them right; for the Marlin is as good as the best, were it not for that infernal action which spoils the whole gun.

After I returned home I bought a 22 Winchester and 2 boxes of Peters semismokeless, and went out to try the new gun. I filled the magazine, put up a mark, and worked the lever, but nary a cartridge would come up in the gun. With Winchester ammunition the gun worked like a charm, as I found later. Examination of the Peters shells showed that the bullets had slipped back in the cartridges, as they will readily do, making them too short to be handled by the action. The Peters people need not get sore about this statement, for the fact can be readily established in court if necessary. The Peters company should fill their shells so full that the balls can not slip back. I like their semismokeless better than black powder and as well as smokeless except for the noise it makes.

The Winchester company might also take the hint and fix their gun so if the cartridge is a little short the gun woul handle it just the same.

I am not yet fully acquainted with the Winchester, but doubt if I shall ever like it as well as I could like the little Marlin—*if* it would only work right. However, I am disgusted with Marlin's attitude in this matter and unless it changes he will lose custom in this country. I should think it would pay him to hire a man to read RECREATION and learn what is the matter with his gun: then fix it properly and tell his patrons through this magazine that he has done so. The Peters company too, would better follow the same line. When they say through RECREATION that the fault in their cartridges has been remedied, then my friends and I will try them again.

M. C. Kissinger.

STRANGE FREAK OF SMOKELESS POWDER.

I send you a 25-20 Winchester center fire shell which has been fired 3 times; once with the factory load of black powder and twice with 3 grains of semismokeless. It was used each time in a new Marlin rifle. The indenting of this, and of every one of a lot of other shells of same make and with same load, occurred at the second firing. I used Winchester No. 1 primers. There was nothing in the chamber of the rifle and the reloading chamber of tool was clean. I can not see what could have caused the dent. All the other shells were dented in exactly the same place and to about the same extent. One had another slight dent by the side of the first.

This is my first experience with smokeless powder. Have heretofore used 10 to 15 grains of black, filling the space between powder and bullet with sawdust. As that was a great deal of trouble I thought of using an equal bulk of smokeless.

Have never heard of anyone having similar trouble with smokeless powder. It surely could not have been caused by the shells not fitting the gun; they worked easily in the chamber and do so still.

Igno Ramus, Moscow, Idaho.

ANSWER.

In relation to the above Mr. J. H. Barlow, of the Ideal Manufacturing Co., writes as follows:

Have looked this matter over carefully, and have about come to the conclusion that I am a brother of Igno Ramus.

I have but one theory, which is this:

The denting was caused by air being imprisoned between the chamber of the rifle and the outside of the shell. The imprisoned air was heated by the ignition of the powder, which expands it greatly, and the instant the bullet left the muzzle of the rifle, the inside pressure became simply the normal atmospheric pressure. Then the heated expanded air exerted its power and compressed the shell inward.

I have frequently seen the same thing occur when resizing shells in a resizing tool. The forward portion of the muzzle of the shell striking that portion of the chamber or resizing die, imprisons the air between the muzzle of the shell and the shoulder, which, when driving the shell to the head, compresses the imprisoned air, and the result is an indentation, the same as in the shell sent to me.

This may not be the true reason, but it

is the best I have to offer. Should be pleased to hear the opinions of others. Such things, undoubtedly, are of interest to many readers of RECREATION.

EFFECT OF BARREL LENGTHS.

What effect do varying barrel lengths have on the trajectory of the modern small bore rifles, using smokeless powder? What is the difference in the shooting qualities of a 28 inch, 30 inch and 32 inch shot gun? Of course increase of barrel length has a tendency to efficiency, as far as accuracy is concerned, since the distance between the front and rear sight is thereby increased; but will a 24 inch or 26 inch rifle barrel shoot as hard as one 28 inches long? I believe most of us would prefer a 26 inch to a 28 inch barrel, provided the velocity was the same.

Frank Q. Rutherford, Chihuahua, Mex.

I referred the foregoing question to an expert gun maker, who replies as follows:

Generally the length of barrel influences velocity. Up to a certain length the longest barrel has the greatest velocity. This is particularly true in rifles. In shot guns where dense powders are used the same rule applies, but in less degree. The dense powder is entirely consumed in less space than the bulk powder. A 24 inch rifle barrel will shoot as accurately as a 26 or 28 inch, provided it can be held as closely. By the words "shooting hard" we suppose the party means hitting hard. The cartridge being the same, the long barrel rifle delivers the greatest velocity. In making up the figures for foot pounds striking force of the bullet, the velocity enters into the equation as the square, and therefore slightly differing velocities mean greater differences in foot pounds. This is true for both black and smokeless powders. Black powder velocities in rifles differ less with different lengths of barrels than smokeless powder velocities. In the 30 caliber rifle, using Winchester U. S. Army ammunition, there is about 100 feet difference in velocity between the 30 inch and the 26 inch barrel.

C. D. R., Hartford, Conn.

SOME PETERS ITEMS.

I note what P. R. Mills has to say about Peters ammunition. He is not far out of the way. Last fall I was in a town where I could get no other ammunition than Peters. There was plenty of that; the storekeeper said afterward that his jobbing house had unloaded on him. In 3 days' shooting with those shells I missed more birds than in all my life before. Some of the cartridges would miss fire and others would hang fire 15 seconds or more. When one got off while a quail was in sight it would knock feathers off the poor bird and veil further proceedings in clouds of blue smoke. I had similar experience with their 22 rifle shells. In one instance one hung fire 30 seconds by actual count.

Dr. J. R. Verne, Farmington, Minn.

A laughable incident occurred as I was wandering around the Garden during the Sportsmen's Show. I stepped up to one of the booths and asked a young red haired mick if he could tell me where RECREATION's booth was.

"RECREATION is a thing of the past," said he. "That's a magazine that is dead;" and off he went on a long, jumbled tirade against RECREATION. When I recovered sufficiently from my surprise at this outburst I looked up at the sign and read "Peters Cartridge Co."

L. G. Warren, Stamford, Conn.

I think the Peters Cartridge and Powder Co., make a big mistake in leaving RECREATION. It was through your magazine that I bought their ammunition. If they had not been advertising in RECREATION I should not have thought of trying their powder. E. L. Cobb, Portland, Me.

STRAIGHT GROOVE RIFLING.

In April RECREATION A. Kennedy, of Missoula, Mont., speaks of an old muzzle loading rifle having straight grooves from breech to muzzle. That system of rifling is supposed to have been invented by Gaspard Zollner, of Vienna, in the latter part of the 15th century. Although in theory no increased accuracy was given to the fire by such grooving, yet in practice, the accuracy was better, because the grooves allowed the windage to be diminished, and formed receptacles for the residuum of powder and ash, which in smooth bores lodged on the surface of the bore, causing wild shooting after a few discharges.

The rifle seen by Mr. Kennedy is a rare specimen, and would be justly prized by a collector of antique arms. Doubtless it has been altered from a flint to a percussion lock.

Some years ago, I was told by an old gentleman from Wenham, Mass., that his grandfather, who was a great sportsman, used to scratch the inside of his long smooth bore gun before competing in a shooting match with round ball. A little 4 or 6 prong iron tool was fastened to the ramrod and forced straight in and out of the gun, making small straight grooves the entire length of bore. Better scores were made with the scratched guns than with plain smooth bores.

Those who are shooting round ball from their cylinder bore breech loaders, might get a hint from the practice of long ago,

and have 6 straight grooves cut in one barrel. Possibly that is just the thing needed. Whoever tries the plan, let us hear about it in RECREATION.

P. W. Humphreys, Clarksville, Tenn.

NO FOREIGN GUNS FOR HIM.

What advantage any American sportsman expects to derive in buying a foreign made bolt action military rifle instead of an American built high pressure sporting rifle, such as the Winchester, Savage or Remington-Lee, is more than I can see. The lines of foreign sporting rifles are bad enough, but their military rifles are frights. They are built like a club; look and handle like one. If one must have a bolt action, buy the Remington-Lee; if a musket, the Savage Arms Co. build the best in the world; and in reliable, well made hammer rifles the Winchester '94 model with 28 inch barrel is a sure winner. No prettier or better hanging rifle was ever built. The present high state of perfection in rifles was developed this side of the Atlantic by American brains. What sense there is in American sportsmen cracking up the Mauser musket for sporting use is beyond my comprehension.

I beg to differ from J. N. Nichols in regard to DuPont No. 1 smokeless not injuring a rifle barrel. I know by experience that it will spot a barrel even after thorough wiping. Fire a charge of black powder from a gun after using smokeless and it will be all right.

In answer to Repeater, as to how to secure best results with the 44 powder and ball revolver, will say he does not need to use wads in loading. Use King's semi-smokeless f. g. powder. See that the bullets are well lubricated and you will get as good results as are possible with that kind of an arm.

H. P. Pettit, Fort Atkinson, Wis.

A SUGGESTION FOR GUN CLUBS.

We are anxious to get some stringent game laws for Indian Territory. Netting of quails was prevalent up to last year, but our gun club prosecuted a few of the culprits and has liberated many hundreds of quails the past season. Our streams are being dynamited, but so far we have not been able to catch any of the rascals. Our club makes a standing offer of $25 for information leading to the arrest of any guilty party, yet we are not sure we have any law to punish the culprit.

Our club consists of 30 members and we are soon to give a big shoot. I suggested the idea of making one event a RECREATION shoot. I will go among our people and see how many subscribers I can get and will also get as many visiting sportsmen as possible to subscribe. The premiums you offer will be given to the most successful contestants. If I succeed in getting 60 or 70 subscribers it will enable us to give several prizes of various values. After the shoot we will let the successful ones select their prizes from your list. In this way I hope to secure from RECREATION much valuable help in suppressing our game hogs.

The majority of our sportsmen here have agreed not to kill over 20 quails in one day, though it is easy to kill 2 or 3 times that number with a good dog. So you see, although we have no law, save that bred in the hearts of all true sportsmen, there are many of us not game hogs.

W. P. Poland, Ardmore, I. T.

LIKES THE MAYNARD.

I have a magazine 25-20, '82 model, which is perfect up to 100 yards. Have never tried it for greater range, but am fitting a telescope to it and intend giving it a rest. I generally carry it with me as I drive about and frequently find use for it on woodchucks.

I see some of RECREATION's readers have trouble in preventing their small caliber rifles from rusting. I have owned mine 10 years and it is as bright to-day as when bought. I have had guns of all sizes from 22 calibre to 12 gauge and have no trouble in keeping them bright. I clean thoroughly with gun grease, soft rags, plenty of elbow grease and a wooden rod. Then I put a clean oiled rag on my wiper, run it through the barrel and leave it there, and the barrel never rusts. The rod should nearly fill the bore of the gun.

As for the power of the 25-20 I find it ample where small game is concerned and I think it large enough for deer. A friend had a horse weighing about 1100 pounds which had lockjaw. A single shot from my Maynard killed the animal instantly. I consider the Maynard the handiest single shot made, and I should like a 30-30 barrel to fit my present gun. I believe others would be likely to buy extra barrels if they could get them.

If any reader wishes to fit a telescope to his rifle I can tell him where he can get a good set of hangers for less than $15.

J. N. Shumway, M.D., Painted Post, N. Y.

SEMI SMOKELESS AND DUPONT.

Occasional charges of Peters semi-smokeless will burn clean, scarcely fouling the gun at all; while in most short shell guns it leaves a tarry substance in the rifling that is extremely hard to remove. This is especially noticeable in 44's, 38's and similar guns; though their velocity, penetration and

accuracy are not impaired by it. Smokelessness does not always mean cleanliness. I would rather have DuPont black rifle powder than all the semi-smokeless ever made. It is clean, and as for strength it can not be beaten.

I own a 30-40 Winchester, box magazine. Its bullets do not fly to pieces on a bone just under the skin as shorter high power bullets sometimes do. I am sufficiently familiar with 23 different styles and models of repeaters, and 11 styles of single shot rifles to distinguish them apart or work them blindfolded. Fully two-thirds of the repeaters are good for 2 shots a second, and some for 3 a second when clean. No 2 repeater systems have the same feel. I have seen many a new gun, of various kinds, clog in awkward hands; but I have never had a clean gun clog with me yet. I always take the trouble to get used to the feel of the lever, or bolt, that works the magazine, before firing the gun. I pick out the cartridge I wish to use and then choose the gun best adapted to it; and I find that a good rule.

Rodney West, Minerva, N. Y.

ADVANTAGES OF TELESCOPE SIGHTS.

What is the meaning of the terms "achromatic" and "non-achromatic," as used in the circulars of makers of telescopic sights? What are the special advantages of such sights? J. E. Bates, Spokane, Wash.

ANSWER.

The term "achromatic" means free from color. An achromatic lens is one usually composed of 2 separate lenses, a concave and a convex, and of glass having different refractive and dispersing powers as crown and flint glass, with the curvature of the surface so adjusted that the chromatic aberration (that which causes color from the decomposition of light) produced by the one is corrected by the other, and the light emerging from the compound lens is undecomposed.

A non-achromatic lens is one in which color is apparent when looking through it.

The telescope sight has some advantages over other sights; for instance, one can find small game in trees where it would be concealed from the naked eye. One can see just where to place the bullet without mutilating the game. One can see the condition of the game, whether it is fit for the table or not. One can see just what he is shooting at, lessening the liability of many accidents; but for hunting where the game requires a quick shot, the Lyman sight is preferable.—EDITOR.

DOWNWARD FORCE OF BULLETS.

If a rifle is plumbed and fired into the air, with what force will the bullet strike the ground on its return in proportion to the force with which it left the gun on its upward flight? And what would be the downward force of shot under same conditions?

Carlos L. Smith, Montpelier, Vt.

ANSWER.

The velocity of the 30-40 U. S. A. bullet when it reaches the earth's surface after being fired upward can be taken to be approximately 120 feet a second. There is a mistaken popular belief that the bullet under the conditions named returns to the earth at the same velocity with which it left the rifle barrel. The bullet, on the contrary, is retarded by the resistance of the atmosphere in its descent, and does not attain a high velocity.

The velocity of shot under the same conditions can not be calculated on account of the lack of suitable data and tables. It is, however, a much simpler problem to determine by actual test, and would be just about the same as the velocity of any given size at the extreme range. This could readily be determined with any good chronograph.—EDITOR.

STANDARD AMERICAN RIFLE TARGET.

Please tell me the dimensions of the standard American target for off hand rifle shooting at 100 yards. Also, of whom they may be bought and at what cost.

Geo. F. Mapes, Penn Yan, N. Y.

ANSWER.

The standard American target for 100 yards is reduced ½ from the 200 yard target, the dimensions of which are as follows:

10	ring	$3\frac{36}{100}$	inches	in	diameter	Bull's-eye
9	"	$5\frac{3}{4}$	"	"	"	
8	"	8	"	"	"	
7	"	$10\frac{1}{4}$	"	"	"	
6	"	$12\frac{3}{4}$	"	"	"	
5	"	$16\frac{1}{4}$	"	"	"	
4	"	$20\frac{1}{2}$	"	"	"	
3	"	26	"	"	"	
2	"	33	"	"	"	
1	"	$41\frac{3}{4}$	"	"	"	

The best book for rules, etc., relating to shooting with rifle, shot gun and revolver, is a little handbook published by the Union Metallic Cartridge Co., Bridgeport, Conn., which is mailed to anyone on application.—EDITOR.

SMALL SHOT.

Recreation rifle club was organized at Auburn, N. Y., some weeks ago and is in a prosperous condition. The officers are R. F. Emmons, President; William McKay, Captain; W. H. Dedrick, Secretary and Treasurer.

RECREATION extends its hearty thanks for the honor conferred on it by the club in the choice of a name.

In April RECREATION Mr. Lewis disputes my targets made with an Ithaca 16 gauge gun. No doubt there are others who discredit my story and call me a gun crank. If they will come here I will duplicate the targets in their presence. Or if they don't fancy the trip, I can refer them to 14 men who saw me make the targets.

John Nordstrom, Gothenburg, Neb.

Many sportsmen agree that the box magazine is in every way superior to the tube magazine. All who think so should write to the manufacturers urging them to build box magazine guns in all the popular calibers. I have an old revolver that shoots at least 6 inches too high at 30 yards. How can I remedy the trouble?

G. W. McKay, Kelsey, Minn.

I can say to A. J. Lang that the 25-20 is a reliable and accurate cartridge. I am using it with great satisfaction in a Stevens No. 44. I advise W. S. Meade to buy a 25 rather than a 32 rim fire. If he does not care to reload his shells, he can use the 25 rim fire and still have a better cartridge than any 32.

C. S. Edwards, Auburn, N. Y.

I advise P. B. M., Quaker Hill, Conn., to buy a Stevens Favorite. It is accurate and just the thing for squirrels and rabbits.

C. G., Syracuse, N. Y., will find Winchester gun grease far better than vaseline to prevent rusting.

L. R. Nelson, Greenville, Ohio.

In April RECREATION A. Kennedy, Missoula, Mont., describes a weapon he has seen, as a cross between a shot gun and a rifle. In Sweden they call them "straight rifles." I have used one and found it of good shooting quality, both for round ball and for shot.

P. Olson, Argyle, Minn.

I wish to say to Mr. Rawson regarding his inquiry in May RECREATION about his Parker, that if he holds it right he will find it a good gun for any kind of shooting. There may be other guns as good, but there are none better.

F. S. Furguson, Lou City, Ohio.

I have used and experimented with most kinds of shot gun shells. I have never had a Winchester shell miss fire. Of Peters shells I have had 4 out of 25 miss fire, but those that exploded did their work as well as could be wished.

Geo. Clapper, York, Neb.

I wish to say for the benefit of J. D. Snyder, of Lowell, Ohio, that the Union Metallic Cartridge Co. makes a 22 short mushroom bullet. They are sold by the H. H. Kiffe Co., 523 Broadway, New York City. R. H. Furner, Lima, N. Y.

Will someone kindly inform me what gun is best for the big game of South and Central Africa, and if an 8-bore is a necessity? Which is best as a game gun, the 30-40 or the Lee straight pull Winchester?

Edward Shine, New York.

I want an ejector gun to use exclusively for ducks, wing shooting. Am looking for a sportsman's weapon; not a market hunter's. Will some experienced duck shooter please advise me through RECREATION?

C. F. Dill, Greenville, S. C.

I think it a mistake to load a 12 gauge gun with 2¾ drams powder and 1⅛ ounces of shot. I use 3½ drams of powder and ¾ ounce of shot and get better results than from the standard load.

Adirondack, Alder Creek, N. Y.

I would say to Repeater, Jamestown, N. Y., do not use wadding over either powder or bullet in an old fashioned army revolver. If Repeater will send me his address I will write to him.

Hubbard G. Owen, Romer, Mich.

A good gun for rabbit and squirrel shooting is the '90 model Winchester 22 special. The Stevens Favorite, 25 rim fire is also good. P. B. M. will make no mistake in buying either.

H. C. Clippinger, Akron, O.

I should like to hear through RECREATION about the Winchester 22 caliber, greaseless bullet cartridge. Is it better than the ordinary lubricated cartridge?

A. L. Taber, Los Angeles, Cal.

Will someone give me a few hints on choosing a rifle for squirrel and rabbit shooting? Should I buy a 22, a 25 or a 32?

Buck, Akron, Ohio.

NATURAL HISTORY.

When a bird or a wild animal is killed, that is the end of it. If photographed, it may still live and its educational and scientific value is multiplied indefinitely.

MR. HORNADAY IS RIGHT.

Your correspondent, Mr. W. T. Hornaday, made an error in judgment in trying to portray the good qualities of eagles, in reply to my former article. As emblems of various sorts these mischievous birds have been idolized by superstitious and sentimental classes for thousands of years. Eight hundred years B. C., emperors believed eagles could carry their souls from earth to heaven. When used as standards eagles have been represented as holding thunderbolts in their talons, were among the gods worshipped by the ancient Romans, and are represented with Jupiter in mythology. Like the bear for Russia, the lion for Britain, etc., the likeness of an eagle on coins or arms of Uncle Sam is appropriate and unobjectionable, but only a taxidermist can make either creature a comfortable pet or a safe neighbor; therefore why make unnecessary efforts to perpetuate them? The only perfect emblem of liberty and independence extant, pride and boast of 75,000,000 freemen, who will always uphold and defend it, is the flag of our country, the glorious old stars and stripes. Your eagle professors can never lead me in love, respect, and admiration for that matchless emblem, the red, white, and blue symbol of the American Union; and Mr. Hornaday's letter sharing the glory of that flag with a live eagle, thus dimming the splendor of the banner, was like an attempt to amalgamate pure gold with alloy. The men who "hoe corn or drive team," to use the professor's words, and men of their class, are the mainstay of the country, patriotic and sensible, and will not sanction his ideas. Because a few sentimentalists, with an axe to grind, glib tongues, and trenchant pens can bamboozle a Legislature into passing a law protecting eagles, it does not follow that an appreciable number of residents of the State approve it. Because a professional biologist places a deadly enemy of game and domestic animals, a wholly wicked and dangerous bird, on an equality of adoration with the American flag, is no indication that others, of whatever talents, but with plenty of good Yankee sense, will be hoodwinked or swerved from a practical and proper idea of the fitness of such things. I await a sensible reason why a raptorial bird should be protected by statute. While I never advocated extermination of eagles, I object to penalties for shooting them. They are often an unmitigated curse near civilization, and when detected raiding pasture or farmyard, should be dealt with like any other chicken thief, whether on wings or legs. Besides, eagles are amply able to care for themselves and are neither in present nor remote danger of extermination.

Payson.

ANSWER.

If you knew Professor Hornaday as well as I do, and as well as thousands of other men know him, you would get on your knees and apologize to him for having referred to him as a sentimentalist, with an axe to grind, a professional theorist, etc. There never was and never will be a more earnest, practical, conscientious working naturalist than W. T. Hornaday. He never makes a statement at random, nor without careful consideration. He never makes a statement he can not prove by abundant and unquestionable evidence. His judgment as to wild animals and birds is accepted without question by every well informed nature student in this country and in Europe; and for you to assume to criticise his defense of the American eagle is a piece of presumption that will receive the hearty condemnation of thousands of such men.

There is perhaps no bird or animal native to this country that has been belied more persistently than has the eagle. Thousands of stories of his raids on fields or barnyards, and even on children playing in dooryards, have been manufactured out of whole cloth. I grew up on a farm in the West, and for many years since leaving the farm (more years than I like to recount) I have hunted, fished and studied nature in the various States of the Union where eagles live; yet I have never known an eagle to kill a domestic fowl, a lamb, a pig, or to destroy any other kind of private property. Neither have I ever talked with a man who has seen an eagle do any of these things. This does not prove that eagles do not raid farms or poultry yards at rare intervals, but it does disprove in a great measure many of the serious charges made against the national bird.

Mr. Hornaday has devoted his whole life to the study of our native birds and animals. He, like myself, was graduated from a Western farm. He has traveled nearly all over the world, and when he says that the eagle is a practically harmless bird; that he should be protected by law, and his species perpetuated, I believe it. So does every other man who knows Professor Hornaday.—EDITOR.

REPLY TO MR. COVERT.

T. F. Covert, Beaver Falls, Pa., asks the cause of the tapping sound in the drift. My opinion is there were several German carp feeding under that drift. He says the water was shallow about the drift, which is contrary to my observation in similar cases, but I have seen carp feeding in shallow water. The drift would hide them.

In September, 1898, a friend and I were fishing for bass on Fall creek, and heard similar tapping. It came from an old stump below and on the opposite side of the creek. We moved down to a sand bar about 60 feet from the stump and were quiet a while. As long as we remained out of sight the tapping continued. As soon as we would rise we would see a wave from the stump, caused by Mr. Carp moving to deep water. I am told the noise is caused by the carp sucking the moss or any eatable it may find on the stump. The carp has a sucker mouth and will make this noise when caught, by closing and opening its mouth. The moving of the drift was caused by the carp's tail striking it.

Last fall my friend and I went to Lick creek to catch bullheads and sunfish. We came to a drift in the afternoon. I stepped out on a big elm that had fallen across the creek. We were having a great run of bullheads, when right under me and not 3 feet from me I saw the drift move. At first I supposed it was a small turtle that was causing it to move, but as the drift continued to move at intervals of 2 or 3 minutes I decided that it was a carp. I told my partner to drop him a line. No sooner had the line dropped than a big carp snapped it.

We had willow sprouts for rods and a short line. The fun was fast and lasted only a short time. The carp was too heavy for us to lift on the bank and soon broke loose. By this I do not intend to say the carp is a bass and will snap up any bait that suits his fancy. I have fished for him days without landing one. That carp was feeding and the worm dropped in the right place.

L. E. M., Warrington, Ind.

In this part of the country tapping sounds similar to those described by Mr. Covert are made by fish belonging to the sucker family. They are here called quillbacks. That is probably only a local name. They frequent deep, quiet pools, especially such as are covered with light drift. They appear to feed wholly on vegetable matter, such as moss and scum. Weed and grass seeds that lodge in drift are, when they begin to sprout, also eaten by these fish.

Quillbacks are flat and thin, as bony as shad, and never weigh over 2 or 3 pounds. In color they are silver white, the dorsal fin is 3 to 4 inches long, and the mouth is small. Underneath, the body is a perfectly straight line from mouth to tail, but the back is greatly rounded. They are not considered food fish, and can not be caught with hook and line. They may, however, be taken by spearing.

G. L. Martin, Marshalltown, Ia.

Replying to Mr. Covert: While fishing on Boguechith creek, Mississippi, I saw and heard the same thing he writes of. I made a close investigation and found that the noise was caused by a small species of turtle that lives in our creeks and lakes down here. Like the buffalo fish, these turtles deposit their eggs on driftwood, bark and chips. While doing so they strike the under side of their bodies against the drift and that causes the knocking sound. They all have a hard strip of shell across their body that hits the drift while depositing their eggs. The eggs are hatched by the sun at some future time. The eggs adhere tightly to the driftwood and are about the size of No. 6 shot.

W. E. Davidson, Jackson, Miss.

In answer to T. F. Covert's inquiry in March RECREATION would say that the peculiar sound and motion which he noticed in floating debris was caused by suckers, buffalo fish, carp or other fish having sucker mouths. The noise is made while they are feeding, and their movements, of course, disturb floating objects. If Mr. Covert will watch goldfish in an aquarium while they are taking moss, etc., from stones or the sides of the tank, he will see how the sound is made.

M. A. Stempel, Macedonia, Ia.

A HUGE WHAT?

Lynn, Mass.

Editor RECREATION:

One summer afternoon about 10 years ago I was sailing along the shores of Nahant with Mr. Stephen Woodward, Dr. Warren and his niece, all of Lynn, Mass., Mr. Cobb, Superintendent of Chestnut Hill crematory, Boston, Mass., and a man named Mr. Charles. I was acting as skipper of the boat.

We were passing a weir on the Nahant shore when an unusual commotion in the water attracted our attention. It was apparently caused by some kind of a fish. I sailed the boat as close to the weir as the guy ropes would permit, then tacked and sailed past the weir 3 times, the fish in sight all the time. Some of the party were timid and wished to go away and as there was nothing to be gained by a further scrutiny we went away, leaving the fish still swimming about in the weir. He was at

least 20 feet long, of a grayish color, his body shaped like an eel, with the same vertical oval tail with rounded end. His body was about 10 inches in diameter, but he differed from an eel in respect to his head, which was flattened across the forehead, with eyes bulging like a frog's. On each side of his body, back from his head about 2 feet or less, were 2 feelers about 10 inches long. About 6 or 7 feet behind them, on his back, was a long fin like a dorsal fin on a shark. Taken altogether he was a puzzle and I should like to know what he was. He moved with a great show of power, especially when turning around. I have sailed a yacht in the same water more or less every summer since and have never seen or heard of him. I presume he broke out of the weir, as it would not hold him a minute after he got desperate.

Geo. F. Hogan.

On receipt of the foregoing letter I wrote Mr. Hogan as follows:

Your letter is extremely interesting. It is a great loss to science that some of you who saw the remarkable fish you describe did not kill it, and thus enable some scientist to study it. It would have been well if you had let the timid man go away while the rest of you staid to see the fish. If you can send me any further particulars regarding it, I wish you would kindly do so.

It is impossible to say what the specimen may have been. I should be inclined to think that in the great excitement of the moment his size was to your eyes exaggerated, and that he is a monster eel with some deformity or abnormal development.

I also wrote the men named in Mr. Hogan's letter, asking them to send me a description of the monster as they saw him Dr. Warren replied as follows:

The big fish was in the weir, slashing from one end of it to the other. He seemed to be caught there. He probably went in after fish to eat and was trying to get out when we saw him. We did not dare go too near, as I had my niece with me. The fish's body resembled that of a large eel and the motion was the same. He seemed to have one or 2 fins on top of his back, as well as I could see, and I should say he was 40 to 60 feet long. When he was going through the water from one end of the weir to the other he was enough to scare anybody. The water was all foam where he lashed it.

Dr. Warren, Lynn, Mass.

NO DANGER OF BELGIAN PEST.

In January RECREATION, page 42, there appears a communication from one R. L. Montague, of Oroville, California, stating that Belgian hares are running wild in Butte county and "have increased enormously of late years."

That statement looks much like the old newspaper claims that Belgian hares will ruin the farmers and fruit growers of the United States. Though disproved time and time again, these articles still appear.

Belgian hares will never exist in a wild state in this country, for 2 reasons. First, they are a domestic animal and must depend, like other domestic animals, on the protection of man. It would be fully as reasonable to fear that our peaceable domestic hen might escape from confinement, increase at an enormous rate, and ruin the poor farmers' crops! The Belgian hare, as now reared by Belgian hare breeders in this country, does not exist in a wild state in any country, being solely a made breed, the result of crossing several distinct species, and upbreeding from them by careful selection. Second, the Belgian hare will cross repeatedly with any native species of rabbit in North America, as has been frequently proved; and even if the Belgian hare, on escaping, should develop sufficient instinct of self-preservation to survive, it would be bred out in a few generations by crossing with native species, owing to the great preponderance of the latter. Such crossing could only result in a slight betterment of a few individuals of the native species, making them possibly a little larger, and their flesh and fur of a better quality. This result, all readers of RECREATION will agree, would be most desirable.

On noticing Mr. Montague's article, I wrote him asking him how many of these Belgian hares he could supply, stating in my letter that I would make it exceedingly profitable for him to capture these wild Belgians and ship them East to me. The gentleman never replied, in spite of the fact that I enclosed a stamped reply envelope. That he received my letter is evident, for the time for its return, if undelivered, has long since expired. I also wrote to the postmasters at Chico and Powelton, both in Butte county, California, asking them if there were any wild Belgians in that county. The postmaster at Chico replied, "No wild hares around this section of the country." The postmaster at Powelton, Mr. C. Henry, replied, "There are no Belgians in this country, none ever having been imported to this section." I also wrote Dr. David Starr Jordan, Chief Warden of the California L. A. S., on the same subject. Under date of January 28, Dr. Jordan wrote, "There has been some fear in California that the Belgian hare would run wild and play the same havoc in cultivated fields that its relative does in Australia. I have, however, not heard of any case of this kind. I will write to friends in

Oroville to find out what I can in regard to the alleged pest in Butte county." Again, under date of February 7, Dr. Jordan wrote: "I have looked into the matter referred to in your letter of the 24th ult., and I find no evidence that Belgian hares are running wild in Butte county."

Let Mr. Montague now come forward and defend his statement, made in January, 1902, RECREATION.

Wilmon Newell, Wooster, Ohio.

PROVIDING HOMES FOR BIRDS.

Milwaukee, Wis.

Editor RECREATION:

Last year I had 15 pairs of purple martins in my 26 compartment bird house, and who reared 45 to 60 young martins.

About 8 pairs of old birds returned early for the season of 1902. The young birds generally return about May 10th.

I had some trouble to get a pair of tree swallows to nest in a separate house, year before last, and I experimented with the size of the entrance, until finally the swallows were able to enter and the English sparrow not, as I thought. The tree swallow is a fighter, and will whip a sparrow, or, for that matter, a purple martin, in the open; but when the sparrow once gets inside the house, the swallow will not follow in, but will give up the house. The swallows kept the sparrows away at first, and the entrance being small for the English pups, the swallows were able to raise a brood of young. After the young swallows had left the house, I one day observed a male sparrow enter, after hard work. A wren being also about to take possession of the house, I drove a nail in the center of the entrance, allowing Mr. Wren to enter on either side of the nail, and Mr. Sparrow gave up in disgust.

Last year I fastened a small flower pot to a pole, with wire, and enlarged the water drain hole to suit the tree swallow's size. The sparrows, although numerous, never molested the swallows, who reared a brood. The tree swallows are here again, but the sparrows go into the flower pots this year. Can any of your readers give dimensions of hole which tree swallows can enter, and sparrows not?

Will bluebirds enter gourds? I understand sparrows will not enter nesting places for martins, made from gourds, suspended by twine, and swinging freely. As I have no gourd at hand to make a bird house of, I shall suspend a flower pot by a cord for an experiment.

The sparrows drove out of their house the only pair of bluebirds that came around here to nest for 10 years, but I shot the sparrow that interefered, and lowered the house so it is only about 6 feet from the ground. The sparrows did not like this, and am in hopes, with good luck, to raise a set or 2 of young bluebirds, as the old ones are again building in the house.

Following is an article I wrote to the local *Daily Journal* a short time ago:

> Last year I had a single house wren, who was a bachelor, built his own nest, but apparently could find no mate. This same thing was the case in 1900, the bird staying about all summer. Can any of your readers explain why the bird failed to secure a mate? I can not say it was the same bird both seasons, but each year only one bird was about and each built a nest. Careful watching and examination of the nests after the bird left in the fall failed to show that young birds were raised therein.
>
> The sparrows are plentiful here, but the purple martins, when once located, will fight them to a finish, and whip them every time. There appears to be a general idea that English sparrows drive away all other birds. Careful observation for the past 10 years goes to show that not more than one sparrow will attack another bird at a time and then only when both birds want the same nesting place.
>
> Blue birds are scarce now, and seem to nest in the woods instead of in bird houses as formerly.

Fred Wahl.

CONVINCED THAT LYNX DESTROY DEER.

I read in May RECREATION the article "Does the Lynx Destroy Deer." Several years ago, in January, my father, the late Chief Pokagon, and I were crossing Black river, in this State, with a yoke of oxen and a sled. We were startled by a strange bleating on shore to the right of us, and at the same time we saw a whirling about in the brush, which at first appeared like a small wirlwind, but in a moment we saw "suc-se" (a deer) struggling to free herself from "bi-su" (a lynx). Father grabbed from the sled a stake which he used as a war club, and tried to beat the brute off the deer. "Bi-su" escaped the war club and skulked away out of sight. Our sympathy was awakened for poor "suc-se," that lay prostrate on the ground, and we raised her up. She was a large doe, but to our surprise she was dead. We skinned her and found that her throat was severed, and neck mutilated in a frightful manner. We took the skin and saddles home with us, after staking down the remains of the animal, beside which we carefully set a large bear trap that we happened to have with us.

The following morning we went back to the battleground. We found "bi-su" caught by one fore foot in the trap. Father walked up toward the brute with a heavy war club, and struck at him. "Bi-su" dodged the blow and jumped toward father with such ease as led him to believe "bi-su" had freed himself from the trap. Again and again father repeated his blows, followed by the desperate leaps of the brute, determined to foil his adversary. Finally by a well directed blow, father struck the lynx on the head and "bi-su" breathed his

last. He was of great size. Our people have always regarded "bi-su" as a destroyer of "suc-se."

Chief Charles Pokagon, Hartford, Mich.

Referring to Mr. Gilmore's experience in Colorado, and the query, "Does the Lynx Destroy Deer": Three years ago last fall, I was hunting deer in Northern Wisconsin. Our camp was in a part of the woods where lynxes were plentiful. Early one morning, an hour after leaving camp, I, with my companions, came upon the carcass of a deer, the throat and shoulder torn, bleeding and partly devoured. Although the weather was freezing, the body of the deer was warm and limber. The deer had been dead but a short time. It was a fawn, apparently in good condition, and we could discover no wounds on its body, other than those made by the animal, which, apparently, had been devouring it when frightened away by our approach. There was no snow at the time, and tracks could not be seen, but there was evidence of a struggle. The fawn lay a few steps from the edge of a lake, where it had probably been drinking when pounced on by the beast which destroyed it. We were convinced the fawn had been killed by a lynx. We found lynx tracks numerous when the snow came, and several of these animals were killed in the locality. There were no wolves or dogs in that vicinity.

J. S. Edmond, Janesville, Minn.

SHREWDNESS OF MINK.

The Delaware river is famous for its suckers, which the natives of this region consider a great delicacy in the winter and early spring. The suckers begin to run up stream as soon as the ice breaks up. The ordinary way of catching them is with a hooped fyke, made of cotton twine. Sometimes more are caught than can be consumed and for convenience they are put in a perforated box and kept alive in pure running water. They can then be dressed for the table as wanted.

In March, 1880, I had a fine box of these fish in a small brook near the house. They kept disappearing night after night, in lots of half a dozen at a time. As I had a good bulldog lock on the box I could not account for my losses. The box showed no indication of having been disturbed. In the lid, which was 6 inches above the water, was a round hole 2½ inches in diameter. Examining this hole, I found signs of some small animal having passed in and out, so the next night, there being a bright moon, I armed myself with a gun, took a position on a bank near, and awaited developments. In an hour I saw a dark animal approach with all the air of being thoroughly acquainted with the premises. He quickly scrambled on the lid and disappeared in a twinkling through the hole. At that moment a larger mink appeared, and then another. The last comer boldly mounted, and passing by the large mink, disappeared through the hole.

Presently I heard the fish splashing and saw the large mink put his paws through the hole, pull forth a fish and lay it down. Immediately one of the minks came out, seized the fish and disappeared with it in the shadow of an overhanging bank. Then there was more splashing and the large mink reached in again and abstracted another sucker. Out popped the other mink, and made off with it after the first. Then the large mink went in, caught a sucker and tried to push it upward through the hole. After repeated trials he suddenly emerged without the fish and springing down took the trail of his companions. In a few moments he came back followed by the others. All immediately scrambled on the box again and the large one at once disappeared down the hole. Soon a fish was pulled forth by one of the minks on the outside and carried off. This the others repeated. By that time the first was back and duplicated the order and thus they kept up the performance until the fish were all gone except a pickerel weighing perhaps 5 pounds.

When the mink attempted to kill him there was an unusually loud splashing. The accomplices outside peered down anxiously at the battle. Presently they, too, entered the box, when taking advantage of the noise I placed a flat stone over the hole and had the thieves secured.

I left them until morning, and as their pelts were salable, killed them. The stolen fish were carried about 50 feet and deposited in an old stone wall. Every one had been killed by a bite in the back of the neck, severing the vertebral column.

M. L. Michael, North Water Gap, Pa.

HIS PET COONS CALLED.

The Natural History department of RECREATION is both interesting and instructive, and to me is one of the best features of your excellent magazine. Some of the statements made by contributors to this department are surprising to say the least. One asks, "Do grouse drink?" and another asserts that they do not. Another wishes to know if coons can call, and somebody comes up to say that they can not. I have never seen a grouse drink, but in their general make-up and habits they seem to be not unlike other birds that do drink, so I simply take it for granted that grouse drink. However, I can make the positive statement that, at least, some coons do give a loud call. The nearest approach

to it in sound, that I ever noticed, is the call of a skunk, though the 2 sounds are not the same. Most of my observation concerning coons was made on a pair I once had for pets. They were taken about June 10th, out of a tree that had been cut down for wood, and when taken were about the size of a common rat. They were brought up on a bottle and so became very tame. This was done by one of my neighbors who afterward tired of his pets, and I got them about August 1st. They were allowed their full liberty, going where they pleased, naving a nest up on the woodpile in the shed. Those coons could call, and in a way that would touch one's heart, especially when they were teasing for maple sugar or cherries, of which they were very fond. I have taken a lump of sugar, given them a taste, and then held it out of their reach, allowing them to crawl over me in their efforts to get it, and what I listened to was no owl chatter; it was coon chatter, pure and simple. I have observed many other conditions under which coons call.

E. T. Wheelock, Swanton, Vt.

MULE VS. BLACKTAIL.

I have just read in RECREATION the inquiry of Mr. Morris, of Florence, Mont., as to how to distinguish blacktail deer from mule deer and your answer thereto. You say that the blacktail deer is almost identical with the whitetail deer, except that its tail is black on the outside; and that the mule deer is the same as the blacktail deer, only its ears are shaped like a mule's. I have been hunting and killing deer in New Mexico, Western Texas, Arizona and Old Mexico the past 23 years and your answer to Mr. Morris interested me. I have never seen but 2 mule deer; that is, animals that were called mule deer by old Western sportsmen who ought to know. Those 2 deer were killed by George Sligh and Will Lane, on the South slope of Carizo mountain, Lincoln county, New Mexico, in the winter of '81. The largest one weighed 450 and the other 325 pounds. The fat on their hams was an inch thick. They looked something like a blacktail, only they did not have any horns. It is my opinion, formed from the suggestions of old hunters, that the mule deer is a cross between the blacktail and the elk and is alluded to as the "mule deer," not because it has ears like a mule, but because it is "muley"—without horns. The ears on those 2 deer were just like those of any other deer. All species of deer have the same kind of ears, only those of the whitetail are larger in proportion to the size of the animal than those of the blacktail. The whitetail deer is only about half as large as the blacktail and his tail is 3 times as long. When he runs it flaps up and down while Mr. Blacktail keeps a tight grip on that appendage as he bounds along.

J. D Lea, El Paso, Texas.

NATURAL HISTORY NOTES.

Does the English ringneck cock pheasant naturally crow like a domestic cock? If not, then I have one that is a curiosity in that respect. He will stretch up his neck, throw back his head and crow in almost exact imitation of a bantam cock. During the performance he looks as if he was trying to swallow his tongue. Have watched him often at close range and am certain the sound is not an abortive attempt to utter some other cry. At times he makes a sound similar to the k-e-o-u-k of a turkey. My birds are penned close to the poultry yard and I sometimes think the cock has learned a trick from chanticleer.

A. C. Thatcher, Urbana, O.

Man could not live in a birdless world. A French naturalist asserts that if all the birds in the world were to die suddenly human life on this planet would become extinct in 9 years. In spite of all the sprays and poisons which could be manufactured to kill off destructive slugs and insects they would so multiply that in that length of time they would have eaten up all the orchards and crops in existence, and man would be starved to death. All that man does in the way of "preserving to our use the kindly fruits of the earth" is as nothing compared with what is accomplished by the vast army of birds which prey on insect life and thus keep it down to a point which permits of the growth of sufficient food to support human life. Take away the birds and in 9 years not a man, woman or child would be alive. All would be dead of starvation.—Exchange.

Last fall while cutting up corn, my hired man saw a large garter snake crawl from under the bundle which he was lifting. Striking it with his corn knife, he cut it in 2 and we were much surprised to find it literally full of shelled corn. There was at least a third of a pint of the grains, all in the "milk" stage. I never heard of the like before. Did any of RECREATION'S readers?

A. C. Thatcher, Urbana, O.

Did you ever notice when walking up a pair of mallards that the duck always flies first? I have watched them many times. Sometimes when the duck was a little slow about getting up the drake would seem uneasy, but he always watched until the duck started. Of course he would be a close second, but he waited every time.

S. N. Leek, Jackson, Wyo.

Recent letters in RECREATION remind me that last summer many grouse visited every day a spring on our place. I watched them several times, and saw them drink just as chickens would.

Lester Locke, Arko, Ore.

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	Harvey C. Went,	11 Park St., Bridgeport, Ct.
Fairfield,	Samuel Waklee,	Box 373, Stratford.
Litchfield,	Dr. H. L. Ross,	P. O. Box 100, Canaan, Ct.
Middlesex,	Sandford Brainerd,	Ivoryton.
New Haven,	Wilbur E. Beach,	318 Chapel Street, New Haven, Ct.
"	D. J. Ryan,	188 Elizabeth St., Derby.

LOCAL WARDENS IN MASSACHUSETTS.

Norfolk,	Orlando McKenzie,	Norfolk.
"	J. J. Blick,	Wrentham.
"	S. W. Fuller,	East Milton.
Suffolk,	Capt. W. J. Stone.	4 Tremont Row, Boston.

LOCAL WARDENS IN NEW JERSEY.

Mercer,	Jos. Ashmore,	124 Taylor St., Trenton.
Mercer.	Edw. Vanderbilt,	Dentzville, Trenton.
"	Roland Mitchell,	739 Centre St., Trenton.
Morris,	Joseph Pellet,	Pompton Plains.
"	Chas. W. Blake,	Dover.
"	Francis E. Cook,	Butler.
"	Calone Orr,	Hibernia.
Somerset,	G. E. Morris,	Somerville.
Sussex,	Isaac D. Williams,	Branchville.
Union,	A. H. Miller,	Cranford.
	C. M. Hawkins,	Roselle.
Warren,	Jacob Young, Reuben Warner,	Phillipsburg.
Monmouth	Dory-Hunt,	Wanaque.
Hudson,	A. W. Letts,	51 Newark St., Hoboken.

LOCAL WARDENS IN PENNSYLVANIA.

Jefferson,	John Noll,	Sykesville.
Perry,	Samuel Sundy,	Lebo.
Warren.	F. P. Sweet.	Goodwill Hill.
"	Nelson Holmes,	Cornplanter.
Juniata,	Clifford Singer,	Oakland Mills.
"	Ezra Phillips,	McAlesterville.
Venango,	G. D. Benedict,	Pleasantville.
Potter,	Ira Murphy,	Coudersport.
"	Wiley Barrows,	Austin.
"	Chas. Barrows,	Austin.
Crawford,	Jasper Tilliotson,	Tillotson.
"	Geo. T. Meyers,	Titusville.
"	J. B. Lamb.	Buel.
Cambria,	W. H. Lambert,	720 Coleman Ave., Johnstown.
Butler,	F. J. Forquer,	Murrinsville.
Allegheny,	S. H. Allen,	Natrona.
Beaver,	N. H. Covert,	Beaver Falls.
"	W. R. Keefer,	"
McKean,	C. A. Duke,	Duke Center.
"	L. P. Fessenden,	Granere.
"	Wm. Holsinger,	Stickney.
Lack,	Wm. Weir,	Moosic.
Carbon,	Asa D. Hontz,	East Mauch Chunk.
Cumberland,	J. C. Gill,	Mechanicsburg.
Wyoming,	Cyrus Walter,	Tunkhannock.
Tioga,	E. B. Beaumont, Jr.,	Lawrenceville.
"	G. H. Simmons,	Westfield.
Lycoming,	Jas. J. Brennan,	Oval.
"	B. D. Kurtz,	Cammal.
Delaware,	Walter Lusson,	Ardmore.
Montgomery,	L. C. Parsons,	Academy.
Bradford,	Geo. B. Loop,	Sayre.
Clarion,	Isaac Keener,	New Bethlehem.
Cameron,	Harry Hemphill,	Emporium.
Clinton,	M. C. Kepler,	Renovo.
"	Geo. L. Kepler,	Renovo.
Northumberland,	G. W. Roher,	505 Anthracite St., Shamokin,
Elk,	D. R. Lobaugh,	Ridgway.

LOCAL WARDENS IN MICHIGAN.

County.	Name of Warden.	Address.
Ottawa,	W. H. Dunham,	Drenthe.
Kalamazoo,	C. E. Miller,	Augusta.
Berrien,	W. A. Palmer,	Buchanan.
Cass,	Thomas Dewey,	Dowagiac.
Hillsdale,	C. A. Stone,	Hil dale.
Lake,	John Trieber,	Peacock,

LOCAL WARDENS IN VIRGINIA.

Mecklenburg,	J. H. Ogburn,	South Hil.
King William,	N. H Montague,	Palls.
Smythe,	J. M. Hughes,	Chatham Hill.
King & Queen,	R. D. Bates,	Newtown.
Louisa,	J. P. Harris,	Applegrove.
Henrico,	W. J. Lynham,	412 W. Marshall. Richmond.
East Rockingham,	E.J.Carickhoff,	Harrisonburg.

LOCAL WARDENS IN WYOMING.

Fremont,	Nelson Yarnall,	Dubois.
Uinta,	S. N. Leek, F. L. Peterson,	Jackson.
Carbon,	Kirk Dyer,	Medicine Bow.
Laramie,	Martin Breither,	Cheyenne.

LOCAL WARDENS IN TENNESSEE.

Sumner,	W. G. Harris,	Gallatin.
Stewart,	John H. Lory,	Bear Spring.
Robertson,	C. C. Bell,	Springfield.
Montgomery,	P. W. Humphrey,	Clarksville.

LOCAL WARDENS IN NEBRASKA.

Hall,	E. C. Statler.	Grand Island

LOCAL WARDENS IN NEW HAMPSHIRE.

Cheshire,	S. C. Ellis,	Keene.
Sullivan,	G. A. Blake,	Lempster.
"	J. W. Davidson,	Charlestown.

LOCAL WARDENS IN VERMONT.

Rutland,	Wm. J. Liddle,	Box 281, Fair Haven
Windsor,	F. A. Tarbell,	West Bridgewater.
Orleans,	E. G. Moulton,	Derby Line.
Essex,	H. S. Lund,	Granby.

LOCAL WARDENS IN ILLINOIS.

Rock Island,	D. M. Slottard.	12th Ave and 17th St., Moline.
Iroquois,	J. L. Peacock,	She don.

LOCAL WARDENS IN OKLAHOMA.

Kiowa and Comanche Nation,	A. C. Cooper,	Ft. Sill.

LOCAL WARDENS IN IOWA.

Clinton,	D. L. Pascol,	Grand Mound.
Pottawattamie,	Dr. C. Engel,	Crescent.

LOCAL WARDENS IN WASHINGTON.

Okanogan,	James West,	Methow.
Stevens Co.,	Jacob Martin,	Newport.

LOCAL WARDENS IN UTAH.

Washington,	S. C. Goddard.	New Harmony.

LOCAL CHAPTERS.

Albert Lea, Minn.,	H. A. Morgan,	Rear Warden.
Angelica, N. Y.,	C. A. Lathrop,	"
Augusta, Mont.,	H. Sherman,	"
Austin, Minn.,	G. F. Baird,	"
Austin, Pa.,	W. S. Warner,	"
Boston, Mass.,	Capt. W. I. Stone,	"
Buffalo, N. Y.,	H. C. Gardiner,	"
Cammal, Pa.,	B. A. Ovenshire,	"
Champaign, Ohio,	Hy. F. MacCracken Urbana,	"
Charlestown, N. H.,	W. M. Buswell,	"
Cheyenne, Wyo.,	J. Hennessy,	"
Choteau, Mont.,	G. A. Gorham,	"
Cincinnati, Ohio,	B. W. Morris,	"
Coudersport, Pa.,	I. L. Murphy,	"
Cresco, Iowa,	J. L. Platt,	"
Davis, W. Va.,	J. Heltzen,	"
Dowagiac, Mich.,	W. F. Hoyt,	"
East Mauch Chunk,	Pa., E. F. Pry,	"
Evansville, Ind.,	F. M. Gilbert,	"
Fontanet, Ind.,	W. H. Perry,	"
Ft. Wayne, Ind.,	W. L. Waltemarth	"
Great Falls, Mont.,	J. M Gaunt,	"
Heron Lake, Minn.,	K. C. Buckeye,	"
Hollidaysb'g, Pa.,	H. D. Hewit,	"
Hopkinsville, Ky.,	Hunter Wood,	"
Indianapolis, Ind.,	Joseph E. Bell,	"
Jerome, Ariz.,	Dr. L. A. Hawkins,	"
Johnsonburg, Pa.,	W. J. Stebbins,	"
Kalispell, Mont.,	John Eakright,	"
Keene, N. H.,	F. P. Beedle,	"
Kingfisher, Okla.,	A. C. Ambrose,	Rear Warden
Lake Co., Ind.,	Dr. R. C. Mackey,	"
Logansport, Ind.,	E. B. McConnell,	"
Ludington, Mich.,	G. R. Cartier,	"
Mechanicsburg, Pa.,	Dr. J. H. Swartz,	"
Minturn, Colo.,	A. B. Walter,	"
New Albany, Ind.,	Dr. J. F. Weathers,	"
New Bethlehem, Pa.,	Isaac Keener,	"
Penn Yan, N. Y.,	Dr. H. R. Phillips,	"
Princeton, Ind.,	H. A. Yeager,	"
Reynoldsville, Pa.,	C. F. Hoffman,	"
Ridgway, Pa.,	T. J. Maxwell,	"
Rochester, N. Y.,	C. H McChesney	"
St Paul, Minn.,	O. T. Denny,	"
St. Thomas, Ont.,	L. J. Hall,	"
Schenectady, N. Y.,	J. W. Furnside,	"
Seattle, Wash.,	M. Kelly,	"
Syracuse, N. Y.,	C. C. Truesdell,	"
Terre Haute, Ind,	C. F. Thiede,	"
The Dalles, Ore.,	C. B. Cushing,	"
Walden, N. Y.,	J. W. Reid,	"
Wichita, Kas.,	Gerald Volk,	"
Winona, Minn.,	C. M. Morse,	"

DISCOUNTS TO LEAGUE MEMBERS.

The following firms have agreed to give members of the L. A. S. a discount of 2 per cent. to 10 per cent. on all goods bought of them. In ordering please give L. A. S. number:

Syracuse Arms Co., Syracuse, N. Y. Guns.
Davenport Fire Arms Co., Norwich, Conn. Shot guns, rifles
Gundlach Optical Co., Rochester, N. Y. Photographic goods.
Blair Camera Co., Rochester, N.Y. Photographic goods.
The Bostwick Gun and Sporting Goods Co., 1528 Arapahoe St., Denver, Col.
James Acheson, Talbot St., St. Thomas, Ontario, Sporting goods.
Jespersen & Hines, 10 Park Place, New York City

LIFE MEMBERS OF THE LEAGUE.

W. D. Ellis, 136 W. 72d street, New York City.
A. F. Rice, 155 Pennington avenue, Passaic, N. J.
Dr. W. A. Valentine, 5 W. 35th street, New York City.
A. A. Anderson, 6 E. 38th street, New York City.
A. V. Fraser, 478 Greenwich street, New York City.
E. S. Towne, care National Bank Book Co., Holyoke, Mass.
F. G. Miller, 108 Clinton street, Defiance, Ohio.
Gen. J. F. Pierson, 20 W. 52d street, New York City.
E. T. Seton, 80 W. 40th street, New York City.
J. H. Seymour, 35 Wall street, New York City.
A. G. Nesbitt, Maple street, Kingston, Pa.
D. C. Beard, 204 Amity street, Flushing, L. I.
C. H. Ferry, 1720 Old Colony Bldg., Chicago, Ill.
Hon. Levi P. Morton, 681 5th avenue, New York City.
H. Williams, P. O. Box 156, Butte, Mont.
D. B. Fearing, Newport, R. I.
E. H. Dickinson, Moosehead Lake, Me.
Lorenzo Blackstone, Norwich, Conn.
A. L. Prescott, 90 W. Broadway, New York City.
G. S. Edgell, 192 Broadway, New York City.
W. B. Mershon, Saginaw, Mich.
Hon. H. W. Carey, East Lake, Mich.
George Carnegie, Fernandina, Fla.
Andrew Carnegie, 2nd, Fernandina, Fla.
Morris Carnegie, Fernandina, Fla.
W. L. Underwood, 52 Fulton street, Boston, Mass.
C. E. Butler, Jerome, Ariz.
Mansfield Ferry, 183 Lincoln Park, Boulevard, Chicago, Ill.
Austin Corbin, 192 Broadway, New York City.
J. Stanford Brown, 241 South 5th street, Reading, Pa.
W. H. Smith, Bryn Mawr, Pa.
E. B. Smith, Bourse Bldg., Philadelphia, Pa.

There are thousands of men in the United States who should be life members. Why don't they join? Will someone please take a club and wake them up?

GAME AND THE L. A. S. IN THE SOUTH.

Greenville, S. C.

Editor RECREATION:

I have just finished reading the fourth annual report of the President of the L. A. S., in April RECREATION, and must admit that all he said of the Southern people is true.

I saw 2 men of this city, who call themselves gentlemen, come in from a few hours' shooting with 2 quails, 6 robins and 8 or 10 small sapsuckers. Some of the latter were not larger than canaries.

The Western Carolina Game Protective Association, a local organization, is doing all it can to enforce the laws. Our game laws are rigid enough, but as we have no one whose duty it is to prosecute cases, they are constantly violated. We have a law forbidding exportation of quails and other game birds from the State and the selling of quails killed in this State; but as it permits the sale of quails brought from other States, our pot hunters shoot and net our birds and smuggle them in to the restaurant keepers, who claim to have received the game from Georgia or North Carolina. The burden of proof not being on them to show where they got it, they go free, to continue to buy and sell birds as before.

This morning, as President of the W. C. G. P. A., I directed Mr. Chas. Schwing, Secretary of the Association, to swear out a warrant for the arrest of William Sewing, a *restauranter* for offering quails for sale after the 31st day of March. Sewing came at once to beg off, saying he had the birds left over from those bought during the open season. I asked him if he was not ashamed to ask for mercy after having violated the laws the whole winter, and told him he could not expect leniency. He will be arrested this afternoon and we will see that he is punished to the full extent of the law.

In no other State are game wardens more needed than here. Thousands of birds winter with us and need protection; but as our Legislature is composed chiefly of political cowards, it is afraid to pass laws taxing worthless dogs out of existence and creating the office of game warden. What are we to do? This would be one of the greatest sheep and goat raising States, were it not for the dogs, as the mountains are practically worthless except for pasturage. The grass is knee high all over them and not a sheep or goat to be seen. Numbers have tried sheep raising, but dogs got all the lambs.

I would like to join the L. A. S. if it would benefit this State in any way, but as it has no members here I see but little use for me to join. If you, or the L. A. S., can advise us or help us in any way, we shall be glad to do what we can.

A friend just returned from Georgetown, on the coast, reports that on the last day of March a party of men from New York arrived there to shoot ducks. One man admitted that he had brought 3,000 10-gauge shot shells with him and had got 1,500 from a friend. There were 6 in the party; if each had an equal number of shells, the ducks must have suffered. Those men were not market hunters either; they own a steamboat and electric launches and are fencing several thousand acres for a game preserve.

C. F. Dill.

ANSWER.

As a matter of fact it would not do any practical good for you alone to join the League, but would it not be possible for you to induce a considerable number of your friends to join? Our constitution provides that when we have 25 members in a State we shall organize them into a division. While we have done an immense amount of work on the people in your State, trying to get them into the League, strange to say we have only 3 members in South Carolina. I believe if you should join and then begin a systematic canvass of the sportsmen of the State you might soon enroll the necessary number and enable us to organize a division there. After you once get such a branch organized and get to work with the newspapers and through the mails and by personal solicitation, you can in a few months enroll several hundred men. Then when your Legislature meets again you can bring pressure enough to bear on it to procure the enactment of suitable game laws. Meantime I would render you all possible assistance from this office.

I fully realize the necessity of earnest work in your State as well as in the other Southern States. If you decide to take up this work you can make a great many friends among the educated and cultivated people and especially among the progressive women by including in your crusade the song and insectivorous birds. Millions of these that nest in the North, winter in the South, and I am working day and night to induce all the Southern States to enact laws to protect them from the slaughter they are now subjected to during the winter months. —EDITOR.

HOT TIMES AHEAD FOR LAWBREAKERS.

Urbana, Ohio.

Editor RECREATION:

The Champaign county, Ohio, local chapter of the L. A. S., was organized June 6. Henry F. MacCracken, attorney, was elected rear warden, and Chas. H. Oonk secretary-treasurer, both of Urbana. The meeting was enthusiastic and was marked

by evident realization of the fact that the individual members must be awake and active in the work in order to secure the desired results. The cause of game, bird and fish protection was never so strong in this county as it is today. The people generally seem impressed with the belief that this League means business. Already prominent citizens, not yet identified with the organization, are sending for information as to how best to co-operate with us in the work of saving the birds and game. Some of these inquiries are from sources least expected. Already the boys of the towns are careful to distinguish the harmless birds from the English sparrows and other harmful species. The good people are seconding the work of this League by a word in its favor as opportunity offers, and public sentiment is steadily growing in favor of the rigid enforcement of the game and bird laws. We are fighting a winning battle, and victory is not far off.

The officers elected are ideal men for their positions. They are thorough sportsmen, prominent citizens, energetic workers, and determined officers. I wish you could have heard Mac Cracken serve notice relative to his policy as rear warden of our chapter. Lawbreakers will receive scant courtesy from him. He stipulated only that the individual members apprise him of violations. He is the right man in the right place and the same may be truthfully said of Mr. Oonk. Local chapter of the L. A. S. starts off in excellent shape.

The following resolution was enthusiastically and unanimously adopted:

Whereas, The bird, game and fish laws of Ohio have been constantly and persistently violated in Champaign county, and

Whereas, One of the chief reasons for such violation has been the lack of active public sentiment favoring the severe punishment of such offenders, and the consequent ease with which they have evaded the just penalty of their offences, therefore be it

Resolved, By the Champaign county local chapter of the L. A. S. here assembled, that we do favor the vigorous prosecution and severe punishment of all persistent violators of bird, game or fish laws, and that we do hereby respectfully request all magistrates having jurisdiction in Champaign county and before whom an offender may be tried and found guilty, to impose the severest penalty fixed by law for such offence.

And be it further

Resolved, That bird, game and fish laws to afford adequate protection to our birds, game and fishes, should be enforced without fear or favor, and that to such impartial enforcement of the law, this chapter of the L. A. S. pledges its hearty endorsement and active co-operation.

Be it further

Resolved, That a copy of these resolutions be furnished each magistrate in this county. A. C. Thatcher.

This chapter starts off with 120 members, the largest number ever enrolled in any chapter of this League in so short a time. To Mr. Thatcher, vice warden of the Ohio division, is due the credit for nearly all the preliminary work in bringing these 120 men into line. Here is another great object lesson for the friends of game protection. You see what can be done when a determined and energetic man goes to work. There are such sportsmen everywhere. Will not more of them follow Mr. Thatcher's splendid example?—EDITOR.

LEAGUE NOTES.

The Hon. Wm. Sulzer, a member of Congress from New York and a member of the L. A. S., has been doing some good work in Congress during the past 2 years, in the interests of game and fish protection. He has rendered valuable support to the various bills which have been introduced there on these lines, and has expressed a willingness to assist in this work in every way possible. He introduced a bill for the protection of salmon in Alaska, but unfortunately it was defeated because certain other members objected to some of its features. The salmon are being slaughtered at a terrific rate in Alaska, and unless a restriction law is enacted in the near future, they will disappear from that great country, as they have disappeared from California, Oregon and Washington. Mr. Sulzer will doubtless re-introduce his bill in the next session of Congress, and I trust he may then be successful.

I have experienced no special difficulty in conducting League work here, as the people of this section take kindly to the game laws as a rule. I have had no trouble with the Indians. Your correspondence with the Indian agents last winter helped the cause a great deal. Game is increasing. We have a large bunch of antelope in our pasture and as they have not been molested for a long while they are doing well. Deer are becoming accustomed to us, their ancient enemy, and I have reports that a number of them have been seen close to the ranches and villages.

W. P. Saunders, Magdalena, N. Mex.

RECREATION is all right. Every sportsman should take it and read it.

Robt. Hunter, Neepawa, Can.

FORESTRY.

EDITED BY DR B. E. FERNOW,

Director of the New York School of Forestry, Cornell University, assisted by Dr. John C. Gifford of the same institution.

It takes thirty years to grow a tree and thirty minutes to cut it down and destroy it.

CHANGE OF ATTITUDE.

The signs of the times with regard to forestry matters are rapidly changing for the better. No more healthful sign could be pointed out, than the reference to the subject in the meetings of the Lumbermen's Associations.

The National Wholesale Lumber Dealers' Association held their annual convention in Chicago, March 5, at which the subject received more elaborate attention than ever before. The secretary, in his report, made the following commendable recommendation:

"I recommend adding to our already important list a committee on forestry. This question of forestry is occupying the attention of the most prominent men of the country, and while there is an association organized for the promulgation of the ideas, we find that but few lumbermen are interested in this question. It should interest every man engaged in the lumber business. Therefore, I recommend that our by-laws be amended so that a committee of 5 shall be appointed year by year in the regular way."

This was followed by a more lengthy argument on the part of the legal counsel of the Association, from which we cull the following extracts to show the attitude of the legal mind toward a matter, "which seems to me to vitally affect the lumber trade, but which has so far received little attention from lumbermen." I refer to the matter of forestry, a subject which is of little import to the ordinary man of affairs, and which hitherto has had little attention from the practical business world, but has served as the hobby of a few scientific men and an occasional lover of nature in its wilder aspects.

"The progress so far has been along theoretical rather than practical lines, and has been the subject largely of academic thought and effort. It is true that in several instances, where the modern fancy of wealthy men has induced them to acquire large tracts of wild lands, experiments in forestry have been attempted; but the principles of forestry have yet to have their first application in the realm of practical business life.

"If one gets into the frame of mind where the lumbering business of a country can be viewed as though from a distant standpoint, so that the mind's eye can take in the scope of an entire country's operations and can extend its observation over both past, present and future, it becomes clear how important a part in the profitable conduct of the lumber business the application of approved forestry principles might play. He sees a legitimate reason for such change in the conditions under which the business is done as will make possible the application of a proper system of forestry, and will result in such system when applied, adding to the economy with which the industry is carried on."

He then points out what I have again and again put forward, that combinations of large capital, trusts, are best suited to practical forestry.

"The proposition is that on the lumber people themselves depends the preservation of their own business; that in all probability they will alone determine whether they will continue to carry on their operations for all time to come or so misdirect their efforts as to number the years of their business.

"It is evident that no single lumberman can accomplish anything along the lines suggested. It is also clear that in the absence of Governmental interference no man or body of men, outside of the lumber dealers themselves, can or will make any progress toward the establishment of better conditions in the treatment of our forests. It follows inevitably that the lumbermen as a body, through themselves, or some other association or organization, must seriously take up the question and find proper means for its solution.

"It seems inevitable that some closer organization of the entire industry will take place in the not distant future and that such organization will have as one of its reasons for existence the enforcement, either with or without Government co-operation, of a forestry system. Such a condition, however, may be in the near or in the distant future or may never come about. That matter need not and should not interfere with immediate steps to enlarge the influence of this Association, with a view to making some practical study and enforcement of a system of forest culture.

"I suggest an immediate effort to extend the membership of this Association over the entire United States, with the avowed object of making such enlarged membership a means for handling in some

practical way this subject of forestry. To this end there should be a proper presentation of the matter to the lumber trade, embodying:

"A statement of the position and influence of the Association.

"A declaration of its intention to take up in a practical way the question of forestry, with a view first to the education of its members; and secondly, to the establishment of some uniform system which shall govern the lumbering industry.

"Reasons for belief in the success of such effort, provided it receives the support of a fair proportion of those engaged in the business.

"A direct appeal for membership based on the proposed new line of work.

"With such action on the part of the Association we could have 1,000 members instead of 300. The establishment of a bureau of forestry would naturally follow and would prove second in importance to no branch of work which has been taken up.

"The appointment of a special committee to take up the subject and submit a definite plan of action would be proper as the first step to be taken by the Association."

To all of which I say "Amen."

THE LIVE OAK.

One of the most interesting and picturesque members of the vegetable world is the live oak. Oaks have, more than other trees, from time immemorial, commanded admiration, and even reverence, because of their stateliness and sturdiness. They have always stood as the somber symbol of stability and strength. Whether the word "live" in the name "live oak" refers to the evergreen foliage, the long life of the tree or the durability of its wood is a question, although it is fully applicable from every standpoint.

"The monarch oak, the patriarch of trees,
Shoots rising up and spreads by slow degrees;
Three centuries he grows, and three he stays
Supreme in state, and in three more decays."

Nine centuries are thus alloted by the poet Dryden to the growth of the European oak. The same is even more applicable to the broad spreading live oak giants of our South.

Especially venerable and somber does this tree appear when festooned, as is usually the case, with great masses of Spanish moss. This so-called moss is an air plant, which does the tree little if any injury. It is not a moss at all, but a flowering plant, closely related to the hard, rasping pineapple which it appears so little to resemble.

The wood of this oak is famous for its durability, and before the replacement of wood by steel it was extensively used in ship construction. The live oak was to this country what the teak was to India. It was one time a "royal tree," a tree reserved for governmental purposes, especially for naval construction.

It was the endeavor to preserve this tree that marked the beginning of our reservation policy. As early as 1799 the federal government recognized the need of action for the preservation of live oak timber. On the 25th of February, 1799, $200,000 was appropriated for the purchase and preservation of live oak and cedar timber in the South for naval purposes. Beyond small purchases in Georgia, nothing was done until 1817, when the act was renewed and the President empowered to select and reserve public lands bearing a growth of live oak or cedar suitable for the navy. This act resulted in a reservation of 19,000 acres on Commissioners, Cypress, and Six islands in Louisiana. This was followed by an appropriation of $10,000 in 1828, with which more lands were purchased on Santa Rosa sound. For some time there were even attempts at cultivation, which were made under the more general act of March 3, 1827, by which the President was authorized to institute proper measures for the preservation of live oak timber. March 2, 1831, an act was passed providing for the punishment of persons who persisted in cutting live oak timber and cedar on public lands. In all, 244,000 acres of forest were reserved in Alabama, Florida, Louisiana and Mississippi.

Endeavors to protect the live oak mark the beginning of the efforts to protect our public lands, and especially forests, from depredation.

The distribution of the live oak is of interest. It begins in Virginia, and, unlike most of our trees, extends Southward across the frost line to the Southern part of Florida, and then on into the tropics.

Nothing is more suggestively beautiful than an old Southern mansion surrounded by these magnificent trees, draped with masses of gray moss.

No tree is more worthy of preservation, and, in certain places at least, it should still be classed a "royal tree," and placed under the ban as of old.

Lawyer—When I was a boy my highest ambition was to be a pirate.

Client—You're in luck. It isn't every man who can realize the dreams of his youth.—Life.

PURE AND IMPURE FOODS.

"What a Man Eats He Is."

Edited by C. F. LANGWORTHY, PH.D.

Author of "On Citraconic, Itaconic and Mesaconic Acids," "Fish as Food," etc.

THE RESPIRATION CALORIMETER.

An instrument which has proved of great value for studying the fundamental laws of nutrition, as well as more practical problems, is the respiration calorimeter, so called because it is used to study the products of respiration, and to measure energy in the form of heat. In experiments with the instrument, all the income of the body (food, drink, and inspired air) and all the outgo are measured, as well as the fuel value of the food (the income of energy) and the outgo of energy (the muscular work performed and the heat given off by the body).

The respiration calorimeter was devised by Professors W. O. Atwater and E. B. Rosa, under the auspices of the United States Department of Agriculture and Wesleyan University. It consists of a copper box surrounded by one zinc and 3 wood walls, separated by air spaces. The calorimeter stands in a large room which also contains the pump for forcing a current of air through it, and many other instruments and appliances for making necessary measurements. The copper box is really a small room about 7 feet long, 4 feet wide and 6½ feet high. It is furnished with a folding bed, folding table, chair, etc., so that a man may remain in it in comparative comfort several days or even weeks. There is a window in front through which the man experimented on enters the chamber. This closes air-tight. Sufficient light for reading, etc., is admitted through this window. A telephone enables the man in the chamber to communicate with those outside. All the air which is required enters the chamber through a pipe in the front of the apparatus and leaves it through another pipe. The current is maintained by a pump which is an ingenious device. It not only draws the necessary quantity of air through the chamber, but it measures the quantity automatically and delivers a sample for analysis. The air current can be regulated at will, and is always large enough to secure comfort and prevent overheating the chamber and the accumulation of moisture. All the food and drink required are passed through a tube in the side wall of the apparatus. This has a cap on each end. One cap is removed, the food or other article is placed in the tube, and the cap is again screwed on. The man in the chamber then unscrews the cap on the inside and removes the food. The 2 caps are never removed at the same time, and thus no appreciable quantity of air can enter the chamber in this way. The excreta are collected in suitable vessels and passed out through the same tube. All the food and excreta are weighed and samples are analyzed. The incoming and outgoing air is also measured and analyzed. The outgoing air differs from that entering the chamber, since it contains the carbon dioxide and water vapor given off from the lungs. These result from the burning up or oxidation of food in the body just as they result from the consumption of fuel in a furnace. The body is often likened to an engine and food to fuel. The body differs from an engine in that it is in itself built up from the elements contained in its fuel, and any excess over the amount required for building and repairing tissue and for the work performed may be stored as reserve material, chiefly fat.

The respiration calorimeter is so arranged that no heat can pass through the walls from the outside or vice versa. All the heat given off from the man's body inside the chamber serves to warm a current of cold water which circulates in a pipe passing around the inside of the chamber. This device suggests the system commonly employed of heating houses by means of hot water. The hot water brings heat into the room where it is given off, the partially cold water returning to the boiler.

In the respiration calorimeter the cold water enters the chamber, is warmed, and, flowing out, carries the heat with it. By measuring the volume of water which passes through the pipe and its temperature on entering and leaving the chamber, the amount of heat can be easily calculated. The latent heat contained in the food and represented by its fuel value is liberated when food is burned in the body. This heat serves for maintaining the body temperature, supplies the energy necessary for the circulation of the blood, the beating of the heart, and for all work performed. The resultant of all forms of work is heat; that is, the energy which is used to perform work is converted into heat. This is

true of the body and of all mechanical devices for performing work. The heat given off from the body shows how much material was burned in it. If mechanical work was performed by the subject, the amount can be measured by suitable devices. In some of the experiments the man worked a stationary bicycle which ran a small dynamo. In this and other ways all the energy given off by the body was measured and the total energy produced was compared with that introduced in the food consumed. With the respiration calorimeter it is possible to compare different foods and their capacity for producing work, also to learn the quantities of food required for certain kinds of work. In other words, this apparatus can be used, among other things, to test the value of foods in the human machine just as other devices are used for testing the value of fuel for producing work in an engine. It is a delicate apparatus, as will be seen by the fact that it measures readily the heat produced by the combustion in the body of the small quantities of food necessary to supply the energy used when a man rises from a chair and sits again as slowly as possible.

The uses of the respiration calorimeter for studying the theories of nutrition are many. It may be and is used for the study of many practical problems. Others are more popular. While some of the features of this apparatus were suggested by earlier forms devised by European investigators, the essential features are original. It is the first device of its kind combining successfully a respiration apparatus and a calorimeter. As an indication of the way it is regarded by other investigators, it may be mentioned that the German government and the Austrian government have each appropriated considerable sums for the construction of similar respiration calorimeters.

CORDIALS.

The cordials which are so frequently served after dinner owe their flavor, if genuine, to fruits, aromatic herbs, and similar articles. Cordial making is an old practice, having been carried on, for instance, at some European monasteries for generations. Cordials of domestic manufacture are favorites in many families in France and Germany, and old recipes are carefully followed. Home-made cordials are not unknown in America; the black currant cordial, sometimes made in New England, being without doubt a direct descendant of an English ancestor. Cordials frequently contain a large percentage of alcohol. They are usually of pronounced color, which they should own, at least theoretically, to the fruits, flowers, etc., used in their manufacture. The home-made cordials seldom, if ever, contain added colors.

The sale of cordials in the United States has grown markedly in recent years. They are liked for their peculiar flavors, but are, without doubt, frequently served on account of their attractive colors. An examination of bright colored cordials was undertaken recently at the Connecticut State Experiment Station at New Haven. According to the investigators, this was done, not because such goods are seriously adulterated, but because the cordials illustrate most strikingly the extreme to which the present mania for colored food may be carried.

Twenty-nine brands were found on sale in the State and analyzed. The investigation revealed the following facts: *Creme de menthe* is a cordial usually containing 13 to 30 per cent of alcohol, 10 to 40 per cent of sugar, a certain quantity of oil of peppermint and possibly other flavoring matter, and having a vivid green color. Uncolored *creme de menthe* has little sale, and it is doubtless true that the popularity of the green product is due quite as much to its color as to its flavor. *Creme de violette* and *creme de rose* had about the same quantity of alcohol and sugar as the *creme de menthe*. The former was flavored with a violet-like extract (probably orris) and apparently colored with methyl violet or other coal-tar product. The latter was flavored with rose and colored with various red dyes. Other cordials, such as *creme de cacao* and *creme de celeri*, belong to the same class with those already described.

All but 2 of the mint cordials analyzed were colored with coal-tar dyes, usually malachite green or a closely allied color mixed with a yellow dye. The 2 brands which were free from coal-tar dyes contained what appeared to be vegetable colors, probably chlorophyl or leaf-green. This leaf-green is harmless.

Five samples of *creme de violette* were examined. With one exception they were colored with methyl violet, a dye commonly used in violet ink. Of the samples of *creme de rose* and rose cordials, 2 contained a Bordeaux red or a related dye, one fuchsine (magenta), one a *ponceau*, and one cochineal. In 2 of the miscellaneous cordials, a coal-tar orange color (tropeolin) was detected. The *creme de cacao*, *creme de celeri*, *creme de cafe* and *ratafia de cerese* examined contained no added coal-tar color.

The solid matter in all the samples of *creme de menthe* and most of the other cordials consisted largely, if not entirely, of cane sugar, but in 2 of *creme de violette* and one of *creme de rose* it was in part glucose.

BOOK NOTICES.

A NEW POPULAR FISH BOOK.

American Food and Game Fishes, by David Jordan, Ph.D., President of Leland Stanford Junior University, and Barton W. Evermann, Ph.D., Ichthyologist of the United States Fish Commission, is a popular account of all the species of fish found in America North of the equator, with keys for ready identification, life histories, and methods of capture. This is a really great book; and in it the art of making beautiful books has reached highwater mark. A more attractive book, or one which will bring pleasure and delight to more classes of people, has never come from the American press. It's purpose, as stated by the authors, is "to furnish that which well informed men and women, and those who desire to become well informed, might wish to know of the food and game fishes which inhabit American waters." The book contains 621 pages of text, 221 text cuts, 10 lithographed plates in colors, and 64 full page photographs, from life, of 107 species of important food and game fishes. The colored plates are from the remarkable paintings from life by the well known artists, Captain Chas. B. Hudson and Mr. A. H. Baldwin. These plates are marvelously beautiful and scientifically accurate, and far surpass all previous efforts in this line. That of the brook trout deserves special mention.

In the text an equally high standard of excellence has been attained. It describes in language simple and easily understood every species of fish used in America as food or which possesses those qualities called game. The families are taken up in systematic order. Diagnoses are given of all the families and genera containing food or game fishes, and the number of species described is about 1,000. There are keys to all the families, genera, and species, so simple and easily understood that anyone who can read can, with specimen in hand, identify any American food or game fish. To render the identification of fishes even more easy, the authors have given a full glossary of all the terms which might by the novice be considered difficult or technical.

The feature which will prove of greatest interest and value to anglers and all others who are interested in nature is the natural history side of the book. Full, accurate and exceedingly entertaining accounts are given of the habits or life histories of the various species, their geographic distribution, the kinds of lakes and streams in which found, their feeding and spawning habits, and the game qualities of each, together with their food and commercial value. Commercial fishermen are given a vast amount of information regarding the food fishes of America, where the different species are found, their abundance, habits, the methods employed in their capture, and their commercial value. This will prove also of much value to teachers and the general reader.

Anglers are told what the game fishes of America are, not only those of the lakes and streams but of the ocean as well, where to find them, and when and how to catch them. The game and food qualities of each are discussed and many fish stories and bits of angling lore are given.

Every member of the League of American Sportsmen will be pleased at the firm stand the authors take in favor of fish protection. Both are members of the League.

Dr. Jordan and Dr. Evermann, the authors of this popular book, are well known as the most voluminous writers and the leading authorities on American fishes. They are both naturalists of world-wide fame and have been associated in ichthyological investigations almost continuously since 1878. During their study of the geographic distribution and habits of fishes they have each traveled more than 200,000 miles. They have each caught fish in Mexico, Canada, British Columbia, Alaska, the Hawaiian islands and in every State and Territory in the Union. Dr. Jordan, in addition, has fished in Cuba, most parts of Europe, and in Japan and Samoa; while Dr. Evermann has "wet a line" in Porto Rico, the Danish West Indies, the Bahamas, and in far away Kamchatka. While collecting fishes for study they have waded more than a thousand miles in a thousand streams and lakes; sometimes when the temperature of the water was above 100 degrees, and many a time when it was down to freezing. Either one or both have caught about every species of food and game fish known to American waters; and they have eaten or tried to eat them all.

This book is published by Doubleday, Page & Co., New York, at $4 net, a price remarkably low when the size and artistic character of the volume are considered.

"The War in South Africa," by Dr. A. Conan Doyle, is a wide departure from Dr. Doyle's previous work. Its title is self-explanatory, and its purpose is best set

forth in Dr. Doyle's own preface, in which he says, "In view of the persistent slanders to which our politicians and our soldiers have been equally exposed, it becomes a duty which we owe to our national honor to lay the facts before the world."

The book is paper bound and is published by McClure, Phillips & Co., New York.

"Trolley Exploring within 30 Miles of New York" is a little book issued by the *Brooklyn Eagle*, and giving connections for 55 separate trolley routes, quoting prices and naming points of special interest along the lines. Every person within 50 miles of New York, Boston or Philadelphia will find this book useful, and suggestive of many enchanting summer trips which may be taken at slight expense. Price 10 cents. Please say you saw it mentioned in RECREATION.

The Unique Publishing Co., 87 Arcade Building, Utica, N. Y., has issued a handy pocket score book for golf players, which will be sent to anyone asking for it, enclosing a 2 cent stamp and mentioning RECREATION.

PUBLISHER'S NOTES.

THIS BOOK TELLS WHERE.

The Passenger Department of the Northern Pacific Railway has issued a book entitled, "Where to Hunt and Fish." No further announcement than this would seem necessary to prompt every sportsman in the United States to send for the pamphlet. I may add, however, that this publication is fully up to the standard of the others that have made Mr. Chas. S. Fee and Mr. O. D. Wheeler famous. Their yearly Wonderland book has long since become a staple article in the household of nearly every reading sportsman in the country, and the present work is equally beautiful and interesting. In addition to the many fine reproductions of photographs shown in this book, there are 4 full page drawings by Ernest T. Seton, made specially for it. These represent the cougar, the grizzly bear, the elk and the mountain sheep. It has too long been the custom of railway passenger men to exploit the hunting and fishing opportunities offered by their respective lines by telling of big scores that have been made in their territory, and by showing pictures of great piles of dead game or strings of dead fish. In the preparation of "Where to Hunt and Fish" Messrs. Fee and Wheeler have properly refrained from offering any such disgusting records or exhibitions. As showing the healthy sentiment which these gentlemen entertain on this subject, I quote from the preface of the book:

"This company makes one request, viz: Scrupulous obedience to all laws enacted for the protection of game and fish on the part of every person; and above all, don't be a game hog.

"A careful reading of the game laws of the various States is asked. These are to be found, in brief, herein, and it should be enough to state that these laws, wherever they are rigorously enforced—and their enforcement is now general throughout the Northwest—have been productive of untold benefit in preserving the game and fish."

I commend this example to all passenger men who may desire the patronage of the best class of sportsmen.

The book in question can be had by sending 6 cents in postage stamps to Charles S. Fee, G. P. A., N. P. R., St. Paul. If you write, please mention RECREATION.

HOW TO RELOAD PAPER SHOT SHELLS.

Shells that have been fired and are to be used again should be decapped as soon as possible and kept in a dry place. If the primers are allowed to corrode in the pockets of the shells they can not be easily expelled and the pockets will be weakened. If shells are allowed to get wet after being fired, the quality of the paper will be impaired. The waterproofing material, which contains a lubricant, is partially expelled by the heat at the time of discharge. Thus moisture operates more quickly, causing the shells to swell and the laps of paper to separate, leaving the shells larger and weaker than when they were first withdrawn from the gun.

Reject all shells that are torn and frayed on the inside, or at the muzzle. Resize all shells and be sure they will enter the chamber of your gun before reloading. Shell resizing dies are made for 10, 12 and 16 guage guns.

If shells are to be used the same length as they originally were they must be rolled or ironed at the muzzle. This operation hardens the soft portion that had been previously crimped. The Ideal Mfg. Co., of New Haven, Conn., has brought out an ironing attachment for its new shell trimmer that will be found of great value in this work. If interested write for circular and, incidentally, mention RECREATION.

A WORK OF ART.

I frequently get a piece of printed matter that appears to have reached the top notch of high art in that line. Then, by and by, some other piece comes along that raises the ante. The latest example of this is a book recently issued by the Gas Engine & Power Company, Morris Heights, New York City. The title page alone is a dream of the impressionist. It represents a bit of mid-ocean by moonlight, the time when the crest of each wave turns into melted gold.

The original was done in oil, and the printing is in tinted ink, on a slate colored paper, that gives a most weird and interesting effect to the picture. Every page of the book shines with the art of the printer and the engraver. The pictures represent every kind of water craft, from a canoe that you can carry under your arm, to a 150 foot steam pleasure yacht. Every lover of art, whether interested in yachting or not, should have a copy of this book. When you write for it, please say you saw it mentioned in RECREATION.

PERFECTION ATTAINED.

While the Page Woven Wire Fence Company has improved the material in Page fences with every advance that has been made in the science of converting iron ore into the best qualities of steel wire, still the identical principles of construction which were incorporated in the first pieces are yet being retained. The crude machinery first used to coil the wire and to wrap and knot the wires together has been improved, strengthened and simplified, and the capacity of every loom has been doubled; yet the principle of construction in the fence is the same as originally applied. The Page Company has studied hard to find if any improvements could be made, but no one has ever yet devised any.

In Page fences the cross wires never allow the horizontal wires to slide up or down. Their method of wrapping and knotting the cross wires and the horizontal wires together is the simplest and most secure method in vogue.

THE BOSS THE BEST.

Ordinary watch works may generally be made effective timekeepers by careful and strong casing. The finest grades of watch works require strong casing to protect their delicate mechanism. The best of all cases for either class is the James Boss Stiffened Gold Watch Case. This is a gold case stiffened in the center with a plate of hard metal to prevent its getting thin and weak and bending down on the works, as a gold case does after a few years' wear. The Jas. Boss case is guaranteed 25 years, and none was ever known to wear out. Jewelers everywhere keep a full stock of these elegant cases. Ask your dealer to see them; or for the book showing why a Jas. Boss Stiffened Gold Case is better than a solid gold case write the Keystone Watch Case Company, Philadelphia.

DON'T LOSE YOUR GLASSES.

Gall & Lempke, opticians, 21 Union Square, have lately put on the market a little attachment for eyeglasses that will prove a great luxury to such sportsmen as are compelled to wear glasses in the woods, or in the fields. The invention consists of delicate wire clips that can be attached to the outer ends of ordinary eyeglasses in a minute and hooked over the ear, thus converting the glasses into spectacles and holding them securely. Every unfortunate who has to wear glasses has had uncomfortable experiences from their dropping off just when he wanted them to stay on, and this new device holds them on like a pack on a cayuse. The clips sell at 50 cents a pair. If you order please say you saw them mentioned in RECREATION.

THE GREAT GAME FIELDS.

Sportsmen everywhere know the finest shooting and fishing on the continent is to be found in the Northwestern United States, particularly along the line of the Great Northern Railway. Mr. F. I. Whitney, General Passenger Agent of the Great Northern Railway, states that he is having a heavy demand for the 1902 edition of "Shooting and Fishing along the line of the Great Northern Railway." This handy pu lication, in pocket size, has been revised and re-written to date, and is a complete guide to the best Northwestern points for game and fish. Copy will be sent to any address on receipt by Mr. Whitney of 6 cents in stamps.

STOCKING IDAHO WATERS

D. E. Burley, G. P. A., Oregon Short Line Railway, writes me: "During the last few years nearly all our streams have become almost depleted by use of dynamite, traps, etc. This company has been using every effort to replenish the streams which are tributary to our line, and within the past 4 years we have transplanted, approximately. 5,000,000 trout and graylings in the Big Hole, Snake and tributary streams. We expect to continue this work, so that, within a few years, we shall have in Idaho probably the best fishing that can be found in any State of the Union."

FREE TO DYSPEPTICS.

If you suffer from distress, bloating, heartburn, sour stomach or water brash,

you can find relief, and, what is better in most cases, a cure, by using Glycozone. This scientific germicide stops fermentation of food in the stomach, allays inflammation of mucous membrane, and is absolutely harmless. To demonstrate its wonderful efficiency, if you mention RECREATION I will send on receipt of 20 cents, to cover postage, a liberal sample of Glycozone that will prove its merit.

Prof. Charles Marchand, 59 Prince St., N. Y.

Kindly tell your readers I have sold my entire stock of fine Belgian hares to Drs. Phillips & Wrean, of Penn Yan, N. Y. I am confident all applicants will receive courteous treatment from that firm. I advertised in only 2 issues of RECREATION, and that was a year ago, yet since then hardly a week has passed that I have have not received 2 to 4 letters from your readers requesting prices, etc. I had thought that "Out of sight" would be "Out of mind," but it seems readers of RECREATION never let even the advertisements get old. I know of no better advertising medium.

W. L. Blinn, Rockford, Ill.

The new U. M. C. catalogue of shot shells and metallic cartridges, wads, primers, etc., is an attractive pamphlet of 80 pages. The special features are a list of 18 new cartridges, now made for the first time, and special tournament loads for shot guns at the trap. The highest grade U. M. C. primer, No. 3, is now used in all U. M. C. smokeless shot shells. The catalogue contains an index and will be sent free on application. Please mention RECREATION.

Excellent maskalonge fishing is reported from points in Northern Minnesota, on the line of the Great Northern Railway. The only other sport that can compare with this is the salmon fishing of the Eastern United States and Canada. "Shooting and Fishing along the line of the Great Northern Railway," 1902 edition just published, tells all about such points, with names of guides, hotel rates, etc. Send 6c. in stamps to F. I. Whitney, G. P. & T. A., St. Paul, Minn.

The latest "Marble Tricks" for sportsmen are a canoe knife and a yacht knife, each made in 2 models. These knives are similar to Marble's regular Ideal hunting knife, but with thinner and lighter blade, especially adapted to meet the needs of canoeists and yachtsmen. Write Marble Safety Axe Co., Gladstone, Mich., for descriptive circular of these knives and please say you saw their ad in RECREATION.

Persons interested in trapping should write the Oneida Company, Limited, of Kenwood, N. Y., makers of the famous Kenwood traps, for their book on trapping, which is authority on this subject. Please note, however, that this book is not for free distribution, though the Oneida Compay will send their catalogue of traps on application to those mentioning RECREATION.

The Passenger Department of the Grand Trunk Railway has issued a book entitled "Haunts of Fish and Game," which is full of information about the wild country to the North of the St. Lawrence river. Every sportsman in the country, whether or not he may intend to visit that region, should have a copy. Write G. T. Bell, G. P. A., Montreal, Canada. Mention RECREATION.

If you want anything in the way of sportsmen's goods and don't know just where to get it, try R. H. Ingersoll & Bro., New York. They keep about everything you can think of and a lot of things you could not think of if you had 10 guesses. And Ingersoll sells at manufacturers' prices. Yes, and some things below.

Huyler, 863 Broadway, New York, is making almond shaped boxes filled with smaller almonds, which are exact imitations of the real nut. He is making, also, peanut and walnut boxes of the same nature. These are used extensively as dinner favors.

Parker Bros.' advertisement in this issue of RECREATION is mighty interesting reading to any man who uses guns. Fred. Gilbert has made a most important record with a Parker gun during the current year. Be sure to read the advertisement carefully.

W. E. Parker broke 92 per cent of the flying targets shot at in the Williamsport Club shoot, Williamsport, Pa., taking high average. He shot U. M. C. Arrow shells.

J. M. Hughes, of the Lincoln Gun Club, Lincoln, Ill., recently broke 157 flying targets out of 160. This remarkable record was made with U. M. C. shot shells.

Husband: I've been looking over your engagement book, dear.

Wife: Well?

"Can't you postpone that quarrel you are going to have with me to-morrow for another week?"—Life.

EDITOR'S CORNER.

ALL ABOUT SNOW SLIDES.

As stated in a previous issue of RECREATION, I made a trip to the Selkirk mountains, British Columbia, in April last, and camped 3 weeks among the high peaks where snow slides are of daily occurrence at that time of year. I had some rare opportunities of studying these wonderful phenomena.

I saw 3 of the slides come down. I stood within 20 feet of one of them, within 100 yards of another and within 1-4 of a mile of another.

I made an extensive series of photographs of the slides, a number of which, together with an exhaustive report of my observations and experiences, will be published in November RECREATION. I can not say much for the story, because I wrote it myself; but, even though I made the pictures, I can say they are corkers, and every man who has ever seen or heard a snow slide come down will enjoy them. People who have not had such opportunities will also be deeply interested in these pictures.

Furthermore, I have had a lot of stereopticon slides made from my negatives, and shall be glad to show them to clubs or associations who may wish to see them, and to tell what I know about snow, rocks and trees that lose their grip on the mountains and shoot into the bottom of the canyon, at the rate of a mile a minute.

OUTLAW'S DEPREDATIONS STOPPED.

One Peter La Fontaine, a Canadian outlaw, has, for several years, made a practice of crossing the border into Maine, killing game in close season and hurrying back across the border into Canada with the spoils. Maine wardens have been watching for him, but were unable to get a line on him until in March last. Late in that month La Fontaine crossed the line and was promptly apprehended by game wardens Templeton, Houston and Forest. When the wardens read him the warrant he drew a gun and Mr. Templeton promptly put a bullet into La Fontaine's carcass. He is severely though, it is feared, not fatally wounded. He was taken to a doctor in Canada for treatment and nothing has been heard of him on this side since. It is hoped that La Fontaine has at least experienced trouble enough to convince him that the Canadian climate will be more healthful for him hereafter than that of the States.

BILL FOR SOUTHERN FOREST RESERVE.

Senator J. C. Pritchard of North Carolina has introduced a bill in the Senate for the creation of a national forest reserve in the Appalachian mountains within the States of Virginia, North Carolina, South Carolina, Georgia, Alabama, and Tennessee. The park is to include about 2,000,000 acres of land, and the bill appropriates $5,000,000 for the purchase thereof. The bill was referred to the committee on forest reservations for the protection of game, from which it was favorably reported, without amendment, and it is hoped the bill may be enacted at the next session. There is great need of a forest reserve in the district covered by this measure, and the people of the whole country are favorably disposed toward the creation of such a park.

SHOULD NOT USE LIVE BIRDS.

The El Paso Gun club of El Paso, Texas, will give a 3 days' trap shooting tournament in that city during the carnival which is to be held there in January next. Full particulars can be had by addressing W. H. Shelton, Secretary. January in Southwest Texas is like September or October in the Northern States, and it will therefore be a treat to any Northern sportsman to get into that dry, warm country at that time of year.

I trust the club may not use live birds in this tournament. That is not necessary nowadays. Inanimate targets are just as good, and are even harder to hit.

MR. WARD TO BE PROSECUTED.

Herman Kohn, secretary of the San Francisco lodge of Elks, was arrested for having in possession an elk which Chas. Ward, a member of that lodge, killed in Golden Gate park in order that the head might be hung in the lodge room. Mr. Kohn was found guilty and fined $25. Mr. Charles Vogelsang, State fish and game commissioner, has decided to prosecute Mr. Ward, who did the killing, and the man who placed the carcass in cold storage. These men will probably conclude by the time they get through that it would have been cheaper for them to go into the Rocky mountains if they must have a head.

He (who has offended her): "Won't you look up at me?

"If I did, you'd kiss me again."

"No; honest, I won't."

"Then what's the use?"—Life.

"Drink Beer"

When you get run down, your doctor says "drink beer." Or he prescribes a malt tonic — concentrated beer.

Weakness calls for food, and barley-malt is a food half digested. The digestion of other foods is aided by a little alcohol, and beer has 3½ per cent.

Weakness requires a tonic — that's hops.

And it's good for well people, too, if you get a *pure* beer. That's essential.

Even a touch of impurity makes beer unhealthful, because beer is saccharine. Impurities multiply in it.

And a "green beer"— insufficiently aged — causes biliousness. But a pure beer — well aged — is the beverage of health.

Schlitz beer costs twice what common beer costs in the brewing. One-half pays for the product; the other half for its purity.

One-half is spent in cleanliness, in filtering even the air that touches it, in filtering the beer, in sterilizing every bottle. And it pays the cost of aging the beer for months before we deliver it.

If you ask for Schlitz you get purity and age, yet pay no more than beer costs without them.

Ask for the Brewery Bottling.

WHY THE GRIZZLY IS DISCREET.

THE OLD CATTLEMAN, in "Wolfville Days," says:

Courage is frequent the froots of what a gent don't know. Take grizzly b'ars Back 50 years, when them squirrel rifles is preevalent; when a acorn shell holds a charge o' powder, an' bullets runs as light and little as 64 to the pound, why son! you-all could shoot up a grizzly till sundown an' hardly gain his disdain. It's a fluke if you downs one. That sport who can show a set o' grizzly b'ar claws, them times, has fame. They're as good as a bank account, them claws be, an' entitles said party to credit in dance hall, bar room an' store, by merely slammin' 'em on the counter.

At that time the grizzly b'ar has courage. Whyever does he haye it, you asks? Because you couldn't stop him; he's out of hoomanity's reach—a sort o' Alexander Selkirk of a b'ar, an' you couldn't win from him. In them epocks, the grizzly b'ar treats a gent contemptous. He swats him or he claws him, or he hugs him, or he crunches him, or he quits him accordin' to his moods, or the number o' them engagements which is pressin' on him at the time. An' the last thing he considers is the feelin's o' that partic'lar party he's dallyin' with. Now, however, all is changed. Thar's rifles burnin' 4 inches o' this yere fulminatin' powder, that can chuck a bullet through a foot of green oak. Wisely directed, they lets sunshine through a grizzly b'ar like he's a pane o' glass. An' son, them b'ars is plumb onto the play.

What's the finish? To-day you can't get clost enough to a grizzly to hand him a ripe peach. Let him glimps or smell a white man, an' he goes scatterin' off across hill an' canyon like a quart of licker among 40 men. They're shore apprehensife of them big bullets an' hard-hittin' guns, them b'ars is; an' they wouldn't listen to you, even if you talks nothin' but bee-tree an' gives a bond to keep the peace besides. Yes, sir; the day when the grizzly b'ar will stand without hitchin' has departed the calendar a whole lot. They no longer attempts insolent an' coarse familiar'ties with folks. Instead of regyardin' a rifle as a rotton cornstalk in disguise, they're as gun-shy as a female institoote. Big b'ars an' little b'ars, it's all sim'lar; for the old ones tells it to the young, an' the lesson is spread throughout the entire nation of b'ars. An' vere's where you observes, enlightment that a-way means a-weakenin' of grizzly-b'ar courage.

"You say the evening wore on. What did it wear?"

"The close of day, of course."—Punch Bowl.

ORE HUNTING FOR SPORT.

It is great pleasure to read the many hunting and camping stories in RECREATION; you secure the best in that line. I saw an article some time ago about prospecting for minerals while on such trips. Having spent several seasons in that way, I know it doubles the pleasure of the trip. Many of the rich mines of the West were discovered by men who had practically no knowledge of mining. With little study a man can tell minerals from sandstone or granite. As hunting usually takes a man into unsettled and out-of-the-way places, it is easy and many times profitable to pay some attention to nature's treasures, as well as to the trophies of the chase.

A small prospector's pick, weighing one pound, is all the outfit necessary, and I would as soon leave my gun or my Kodak at home, as my pick. At every cropping of rock or ledge, I break a piece and examine it. A small mineral glass, costing only 50 cents, will aid greatly. When I find rock I do not understand, or which shows mineral of any kind, I take a sample to camp and label it carefully. When I take my collection home, my assayer, for a few dollars, tells me what it contains.

It is said the great camp of Creede was discovered from a small piece of rock, broken by a mule's feet in going over an old trail. The rock was old and weather-beaten, and the watchful eyes of prospectors had passed it by many times; but on being broken it showed a glittering mass of silver. The rock assayed $1,000 to the ton when tested. The Government surveyors put up a corner stone on Bull hill, Cripple Creek district, years before the discovery of this camp.

Sam Stevens, Cripple Creek, Colo.

When a boy I owned a gun like the one described by A. Kennedy in April RECREATION. When it came into my possession the barrel was nearly 4 feet long, and was straight grooved, or rifled, its entire length. The man from whom I got it called it a "straight cut" rifle. I did not use it as a rifle, but for throwing shot I never saw its equal. It had rifle sights and was 38 or 40 caliber. With a small charge of shot its range was wonderful, though the pattern was so close that a careful aim was necessary. Squirrels were abundant in those days and I never failed to bring them down from the tallest trees when my aim was right. I never used the weapon as a rifle, so do not know how accurately it would throw a ball.

M. G. Crawford, Boise, Ida.

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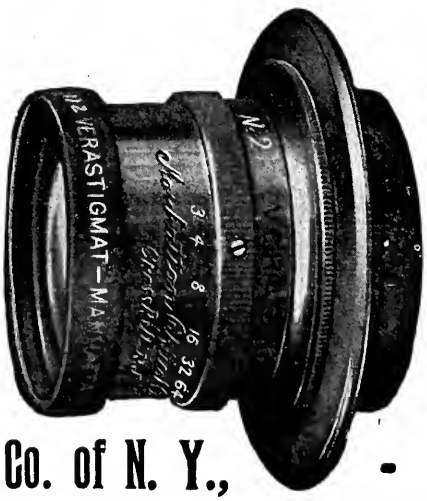

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AMATEUR PHOTOGRAPHY.

"For sport the lens is better than the gun."

I wish to make this department of the utmost use to amateurs. I shall, therefore, be glad to answer any questions and to print any items sent me by practical amateurs relating to their experience in photography.

7th ANNUAL COMPETITION.

RECREATION has conducted 6 amateur photographic competitions, all of which have been eminently successful. The 7th opened April 1st, 1902, and will close November 30th, 1902.

Following is a list of prizes to be awarded:

First prize; A Long Focus Korona Camera 5 x 7, made by the Gundlach Optical Co., Rochester, N. Y., fitted with a Turner-Reich Anastigmat Lens, and listed at $85.

Second prize: A No. 3 Folding Pocket Kodak, made by the Eastman Kodak Co., Rochester, N. Y., fitted with a Bausch & Lomb Lens Plastigmat Unicum Shutter, and listed at $61.50.

Third prize: An Al-Vista-Panoramic Camera, made by the Multiscope and Film Co., Burlington, Wis., and listed at $40.

Fourth prize: A Wizard C Camera, 4 x 5, made by the Manhattan Optical Co., Cresskill, N. J., with B. & L. Iris Diaphragm and Leather Carrying Case; listed at $33.

Fifth prize: A Waterproof Wall Tent, 12 x 16, made by D. T. Abercrombie & Co., New York, and Listed at $32.

Sixth prize: A Gold Hunting Case Watch; listed at $50.

Seventh prize: A Tourist Hawkeye Camera, 4 x 5, and made by the Blair Camera Co., Rochester, N. Y., and listed at $15.

Eighth prize: A Bristol Steel Fishing Rod, made by the Horton Mfg. Co., Bristol, Conn., and listed at $6.

The 10 next best pictures will each be awarded one dozen 8 x 10 Carbutt Plates, made by the Carbutt Dry Plate Co., Wayne Junction, Philadelphia, Pa.

The 10 next best pictures will each be awarded one dozen 5 x 7 Carbutt Plates.

The 10 next best pictures will each be awarded one dozen 4 x 5 Carbutt Plates.

A special prize: A Goerz Binocular Field Glass, listed at $74.25, will be given for the best picture of a live wild animal.

Subjects are limited to wild animals, birds, fishes, camp scenes, and to figures or groups of persons, or animals, representing in a truthful manner shooting, fishing, amateur photography, bicycling, sailing or other form of outdoor or indoor sport or recreation. Awards to be made by 3 judges, none of whom shall be competitors.

Conditions: Contestants must submit 2 mounted prints, either silver, bromide, platinum or carbon, of each subject, which, as well as the negative, shall become the property of RECREATION. Negatives not to be sent unless called for.

In submitting pictures, please write simply your full name and address on the back of each, and number such prints as you may send, 1, 2, 3, etc. Then in a letter addressed Photographic Editor, RECREATION, say, for instance:

No. 1 is entitled —— ——.
Made with a —— —— camera.
—— —— lens.
On a —— —— plate.
Printed on —— —— paper.
Length of exposure. —— ——.

Then add any further information you may deem of interest to the judges, or to other amateur photographers. Same as to Nos. 2, 3, etc.

This is necessary in order to save postage. In all cases where more than the name and address of the sender and serial number of picture are written on the back of prints I am required to pay letter-postage here. I have paid as high as $2.50 on a single package of a dozen pictures, in addition to that prepaid by the sender, on account of too much writing on the prints.

Any number of subjects may be submitted.

Pictures that may have been published elsewhere, or that may have been entered in any other competition, not available. No entry fee charged.

Don't let people who pose for you look at the camera. Occupy them in some other way. Many otherwise fine pictures have failed to win in the former competitions because the makers did not heed this warning.

WITH THE BEGINNER.

Photographing coins, medals and other engraved silver articles offers a good field for amateurs. Much practice and experimenting are needed. The secret of success lies in the lighting. Ordinary daylight will not give the best results. There is nothing to equal a good kerosene lamp, shielded almost all around with a plaster-of-paris shield, after the style of a microscope lamp. This arrangement permits of a soft light being concentrated on the article from the correct angle to best bring out all the delicate detail, with a vigor that can not be obtained in any other way; the taking of a plaster or sulphur cast is often recommended, but it is not the most satisfactory method if the best obtainable results are desired. The use of putty or like matter to give a deadened surface is also objectionable. Properly lighted, as described, the articles themselves, just as they come from the silversmith's hands, will give results that will be a revelation to one who has attempted the work in the ordinary manner.

Imitation enamel pictures may be made as follows: Glass, porcelain, metal, or any other surface that will stand the heat is employed as the final support for a carbon print. The print may be colored, if desired, before the application of the varnish, or japanning. This latter consists of applying

several successive thin coatings of stove varnish. Two kinds are employed; the amber giving the harder film, while the copal variety is the whiter. Each coat must be allowed to dry thoroughly before the application of the next. Moderate heat may be used to facilitate the drying. Polish the surface first with pumice powder, next with oil and tripoli, and finally with putty powder. This should give a hard, brilliant surface. It only remains to subject the article to a temperature of 175-200 degrees for several hours. An ordinary cook stove oven answers every requirement. There is nothing for an amateur with some knowledge of the carbon process to fear in making this beautiful style of pictures.

Sulphite of soda, as a rule, contains a little of the carbonate, and acts in a slight degree as an addition to the alkali of the original formula. Metabisulphite, on the contrary, being an acid salt, neutralizes the alkali to a certain extent. For instance, every 10 grains of metabisulphite in a developer will neutralize 6 grains of potassium carbonate or 13 grains of sodium carbonate crystals. according to which is used as the alkali. Understanding this, due allowance may be made and the required quantity of alkali added. As the best crystallized sulphite of soda contains only about 27 per cent of sulphur dioxide, the active agent for the prevention of oxidation, while the metabisulphite contains over 57 per cent, the latter is more than twice as efficient a preservative, and should be used in a correspondingly less quantity.

An acid fixing bath for developing papers has many points in its favor, and its excellent keeping quality makes it less likely to cause serious trouble. It is difficult to judge when a bath has passed its usefulness, as we do not always remember the number of prints fixed or the weeks or months it has been in use. If it has become exhausted it will no longer fix any prints; and the difficulty is that it is scarcely possible to judge whether a print is fixed by its appearance. With a negative this is not experienced, as we are not deceived by a white and opaque ground. Therefore, by occasionally fixing a negative in the acid fixing bath for prints, and noting the time it takes to fix, you have the necessary assurance that it will do further duty.

For hardening gelatine or bromide prints several other chemicals will serve equally as well as the alum bath, if not better. Chloride of aluminum, tannin, or formaline, are all good for hardening bromide prints. A weak solution only is required. One in 20 is about the right strength for the formaline bath. Too strong a bath will cause blisters.

Some simple scenes make attractive pictures by photographing them almost directly against the light. In doing work of this kind, a hood to protect the surface of the lens from the direct rays of the sun is advisable. Failing this, the slide, held so that it shades the lens without cutting off any of the view, is a good substitute.

To intensify overtimed negatives rinse each negative and immerse a few minutes in the ordinary solio toning bath. Wash again, place in the fixing bath, and treat as usual. They can not be printed on carbon velox. Use special printing paper.—*Western Camera Notes.*

TO WASH NEGATIVES QUICKLY.

I have devised a washing system that I have used nearly a year and I can wash all negatives in 20 minutes by this process. After washing I always test the plates by permanganate of potash and carbonate of soda solution, until the water from them does not color. Then they are sufficiently washed.

This system is for those who have no running water.

Procure a large wooden bucket from a grocer or confectioner. Give this 2 coats of shellac, after closing all cracks with painters' putty. Bore a hole in the side about one-half inch above the bottom, and one-half inch in diameter. Get a tinsmith to make you a tin tube a little less than one-half inch in diameter. Then get about a foot of one-half inch rubber tubing. Fit one end of the tin tube into the hole in the bucket, nail it and putty up all cracks. Then fit the other end of the tin tube into the rubber tubing and twist a little thin wire around it to keep it in place. This bucket forms a reservoir, or tank. Twice filled with water will be enough to wash 10 negatives 20 minutes.

For the washing box get from your grocer a clove or spice box, or any strong, dovetailed wooden box. The one I have is 7 inches long and 7½ inches wide. It was 8 inches deep, but I sawed it off to 5½ inches, inside measurement. This is for 4x5 inch plates. A similar box of larger size will serve for 5x7 inch or larger plates. Then the opening in the bucket should be made larger, to allow a sufficient flow of water. Bore a hole one-half inch in diameter in the shortest end of the box, one-half inch from the bottom, and fit this with a tin tube similar to the one in the tank, save that the rubber tubing should fit into the tin tube instead of the tin tube into the rubber, as in the tank. This tube should not project far into the box, but should be bent over and nailed.

For the holders saw a half inch board long enough to fit tightly the shortest way across the box, and about 3½ or 4 inches high, or the whole height of the box if preferred. Bore 3 or more holes one-quarter inch in diameter in the bottom of this board, as shown in diagram herewith, and put the board into the box. Get 2 strips of one-half inch stuff about 3 inches wide, and the same length as the board. Make as many grooves or cuts in the strips as you wish. The diagram shows 13. Make these 2 strips exactly alike. Nail one on the board as shown on diagram and the other on the opposite side of the box from where the board will be put. Put the board, strip outward, one-half inch from the shortest end of the box, fit tightly, and nail. The other strip nail directly opposite, about 1½ inches from the bottom. Be sure the plates fit into these groves easily, before the final nailing. Bore a hole in the box one-half inch from top on same side where the small strip is nailed, to let the water run out. The diagram shows the whole system. Varnish the box with shellac after puttying all the cracks.

If the water runs too fast, tie a twine around the rubber tube to check the flow. This system is cheap, reliable and does its work quickly. The water flows in below and goes out with hypo at the top, while the plates are on the edge. The space that is left open on top between the board and the strip can be closed by nailing a small strip across so as to force the water through the holes at the bottom of the board.

Edgar R. Thome.

PRACTICAL ADVICE.

Flour paste, beaten thoroughly and well boiled, with a few drops of oil of cloves and a little alcohol added makes a mounting paste which keeps well.

Many amateur photographers will endeavor to secure snow scenes at this season of the year, and it may save them disappointment and loss of material to know beforehand that their principal source of failure would be over exposure. Snow scenes are more difficult to render than any other branch of the art, not excepting portraits. In the latter, under exposure is most common, but over exposure is almost always present in snow pictures. The light that is reflected from the snow is under estimated, and a stop half the size that would be used in ordinary circumstances will be about right. The point of view should be chosen so as to bring some dark object in the foreground, and if the snow lies smooth it should be broken by footprints or mounds before exposing, so as to give some light and shade to what would otherwise be a flat, uninteresting picture.

A short exposure gives brilliancy, which is characteristic of sunshine. A prolonged exposure gives a negative that will convert the brightest day into an effect resembling the shades of evening.

Some developers, such as metol, rodinal, weak pyro, bring out detail early in development, and gain slowly in density. Others, as hydroquinone and strong pyro, gain density rapidly. All, however, give identical results if carried to the same stage, but in general practice it is found advisable to combine a rapid developer for detail and a slow developer for density.

Print or negative washing dishes made of metal soon wear out. A satisfactory investment for this purpose was an empty butter tub from the grocery. A small hole drilled near the bottom carries away the dissolved hypo. Set under a tap, with the water regulated to keep the tub just full, it needs no further attention. Plates can be put in a washing rack and lowered in the bucket.

To find the exact focus of a lens, focus any object, a foot rule for example, so the image on the screen is the exact size of the object itself. Measure from focusing screen to the object and ¼ of that distance is the focus of the lens.

Brown wrapping paper, such as is used in hardware stores, is a good thing on which to mount warm-toned prints. If the print is first mounted on a piece of white paper so as to show a marginal white line, 1-16 inch, the effect is much better.

To develop films in the roll, take 2 bowls or small basins from the kitchen, in one put clean water in the other the developer. Take hold of each end of the film with a wooden clip clothes-pin and pass it through the water in a seesaw motion, then through the developer until development is complete.

Artistic fuzzytypes can be printed from sharp negatives by placing a sheet of glass or celluloid between print and negative, and printing at the bottom of a deep box. —The Camera and Dark Room.

THE CHEMISTRY OF PYRO DEVELOPMENT.

Constantly changing conditions of light and temperature may make it necessary at times to change the proportions of the different chemicals given in developing formulas. The effect of each ingredient on the plate is as follows:

Pyro is the agent that gives strength.

Sulphite of soda preserves the pyro and prevents the negative from staining yellow.

Sal soda gives detail by softening and opening the pores of the film, causing the pyro to penetrate and act more vigorously.

If pyro alone were used, the development would be slow and decomposition of the

pyro and stain of the negative, due to the absence of sulphite, would prevent full development of the detail.

The addition of sulphite of soda alone would simply enable the development to be continued to a greater extent without stain, but would give a contrasty negative, wanting in detail.

Pyro, sulphite of soda and sal soda, in the proper proportions, the negative correctly timed, and the temperature of room 70 degrees to 75 degrees F. should give a good negative in 4 minutes' development. If in that time your negative is too strong and wanting in detail it is proof that, under your condition of light, you have used too much pyro. Try 25 per cent less. If, however, the high lights are not too strong and the detail is wanting the exposure was too short. This, also, might be overcome by a timely addition of sal soda at the early part of the development. Again, if at the end of 4 minutes your negative appears all over nearly alike, weak and having too much detail, then it is over timed. If the film appears soft, too much sal soda has been used.

If the development has continued 6, 8 or 10 minutes and the result is a flat, weak negative, either your developer is too weak in all its ingredients or the chemicals are impure, or, perhaps, the room is too cold.

Too much pyro gives contrast with proper time of development.

Too little pyro gives a weak negative, with longer development.

Too much sal soda clogs up the negative, with quick development.

Too little sal soda causes contrast and slow development. Too much can also cause flatness.—*Professional and Amateur Photographer.*

SNAP SHOTS.

To print on plain paper, prepare the paper with:

Ammonium chloride	60 to 80 grains.
Sodium citrate	100 grains.
Sodium chloride	20 to 30 grains.
Gelatine	10 grains.
Distilled water	10 ounces.

or,

Ammonium chloride	100 grains.
Gelatine	10 grains.
Water	10 ounces.

Swell the gelatine in cold water, dissolve in hot water, and add the remaining components of the formula. Filter the solution and when still warm float the paper on it for 3 minutes. Sensitize the salted paper on a neutral 45-grain silver bath.

—*The News Monger.*

I always had more or less trouble in changing plates in the holders on a camping trip. I have covered them with bedding and trusted to the feeling to get the right side; then on developing when I got home I have found some of them had been exposed on the wrong side and were covered with dirt. The surest way is to carry a red light; then at night darken the tent by spreading bedding or canvas over it to exclude light from the camp fire.

Did any reader of RECREATION ever try a small tent made of one or 2 thicknesses of red cloth? I think I shall try it this season. S. N. Leek, Jackson, Wyo.

In a recent issue of RECREATION you give a formula for sensitizing paper or cloth; 10 grains ammonia chloride, 20 grains gelatine, 10 ounces water and sensitizing solution of silver nitrate. I took this to the druggist here and he said he did not know what kind of gelatine was meant, as there are 3 kinds; gold, silver and pink gelatine. Will you please tell me which kind to use?

Ralph K. Mussey, Warner, N. H.

ANSWER.

Any good gelatine will answer.—EDITOR.

To remove nitric acid stains from hands or garments, touch the stains with solution of permanganate of potassium; wash; rinse in dilute hydrochloric acid, and wash again.

I was standing by a newsstand on the busiest corner of one of our principal streets. Out of the passing throng a strapping fellow, plainly a toiler in the big city, elbowed his way to within speaking distance of the boy in charge. "Hand me one o' them RE-CREATIONS," said he, as he passed over his little dime. I ventured to remark that he was buying about the biggest 10 cents worth on the stand. He turned on me with the fraternal smile known to all sportsmen, as he replied, "I belong 'way up in New Brunswick, and each month I can hardly wait to get my claws on that little book. It carries me back home, I tell you, back in the moose-country. I'd jest like to see that man Shields, and tell him how much he's done for me." He grabbed his precious RECREATION, plunged into the crowd and left me musing on "that man Shields," and the far-reaching quality of his great work.

Pemigewasset, Worcester, Mass.

"Do you think perfection is ever actually attained in this life?" asked the serious youth.

"Yes," answered Miss Cayenne; "some people become perfect bores."—Washington Star.

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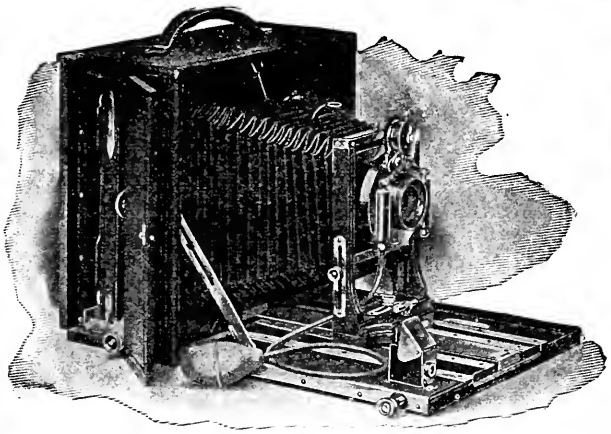

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We do not know how it is possible to offer a stronger guarantee—if we did we would not hesitate to do so.

Write for Complete Catalogue; Mailed Free. It describes Ten different Models ranging in price from $9.00 to $90.00.

CENTURY CAMERA CO., Rochester, N. Y.

Mention RECREATION.

MAKING GOLD CHLORIDE.

Reeb, in a paper presented to a French photographic society, recommends the following method of making gold chloride for photographic use:

Thin sheet gold....	50 grams.
Sodium chloride....	15 grams.
Nitric acid.....	40 cubic centimeters.
Hydrochloric acid..	160 cubic centimeters.

Place in a porcelain dish on a sand bath and dissolve. Cover the dish with a funnel to prevent waste during the process of solution. When solution has taken place evaporate till the salt begins to crystallize on the sides of the dish, then add 5 cubic centimeters of aqua regia diluted with 50 cubic centimeters of water, to insure a slightly acid product, and dilute to 1,000 cubic centimeters. A solution is thus obtained which contains 10 per cent of gold chloride, equivalent to 5 per cent of metallic gold.

Professional and Amateur Photographer.

A toning bath for ready sensitized paper may be prepared as follows:

A—Chloride of gold.....	1 gram.
Water	1 liter.
B—Borax	1 gram.
Tungstate of sodium.....	40 grams.
Water	1 liter.

—The News Monger.

Have used many of the best rifles of this country's manufacture, in calibers 22 to 45. For 2 years I used the .303 Savage. I found it an accurate, hard shooting arm. I do not think there is any ground for fear of the bullets glancing or not penetrating if the game is hit squarely. In the fall of 1900 I shot a 200-pound buck which stood a little over 100 yards from me. The bullet hit him in the shoulder. He dropped without making a single jump. Last fall I bought a Remington-Lee sporting rifle, 7 m. m. caliber. I tested it at the target; later, in deer season, I shot 2 bucks with it. I prefer this rifle to any other I have used. Its shooting points are equal to the best. The action is sure and simple. Can be easily taken apart inside of a minute, consequently it is easy to clean. Then its weight is but 6½ pounds. This means much to the man who carries the rifle on a 15 or 20 mile tramp. One of the deer I shot last season was about 90 yards from me, running. The bullet caught him back of the front leg, and he dropped in his tracks. The other was a 200-pound buck, running broadside to me. The bullet hit him just back of the shoulder, and stopped him instantly. In both cases the bullet passed completely through the deer. For hunting purposes I use soft nose bullets.

Remington-Lee, Calumet, Mich.

Photographic Talk No. 3.

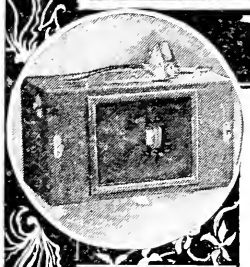
In General

Our photographic talks have created more of a stir than we expected. But really it's no wonder! It is doubtful if any advance in the photographic art could be of more general interest than the perfection of R. O. C. The Rochester Dry Plate. The chemical properties of the emulsion in connection with our method of coating, render these plates practically non-halation in quality. The introduction of R. O. C. The Rochester Dry Plate has obviated, in a measure, the necessity of a special plate for special purposes, and permits the widest latitude in exposure and development. It is the ideal plate for the all around worker. It will pay you to ask your dealer for

ROCHESTER OPTICAL & CAMERA CO., Rochester, N.Y.

Largest Plate Camera makers in the world.

This is the kind of photograph made with



The AL-VISTA Camera

GETS EVERY THING IN SIGHT

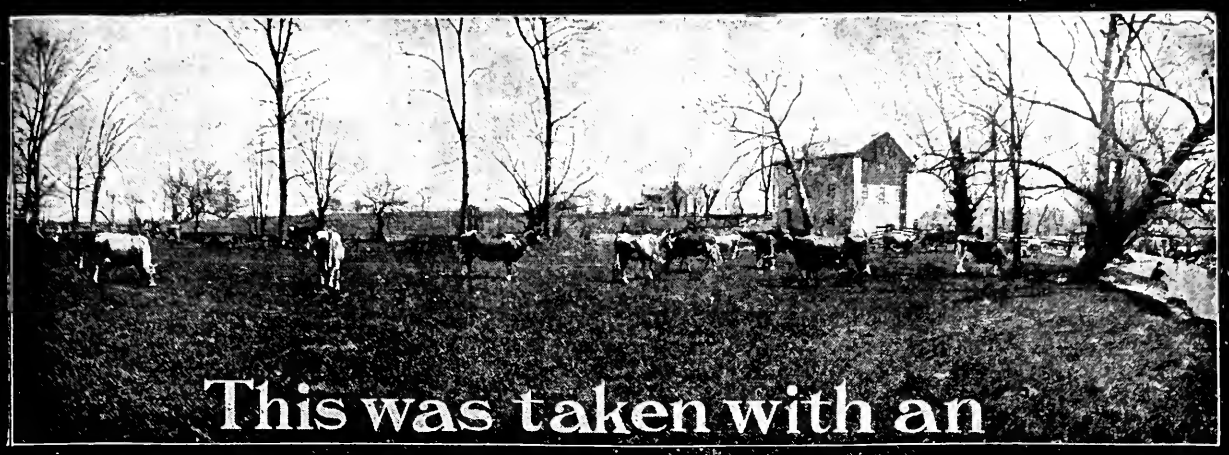
This Panoramic Camera

is the Highest Development of Photographic Science

IT IS a decided advance upon anything heretofore produced. The revolving lens sweeps from one side to the other, making a picture greater than your two eyes can see at one time.

Since we have adopted our co-operative, up-to-date plan for selling these cameras direct to the consumer, thousands have taken advantage of our offer. This plan permits you to buy the camera in small monthly instalments. You have the camera while you are paying for it. This shows our confidence both in our cameras and in human nature. :: *Write us for full particulars.*

Multiscope & Film Co., No. 136 JEFFERSON STREET BURLINGTON, WIS.



This was taken with an

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Easy to use! Easy to buy!

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THE MULTISCOPE & FILM CO.

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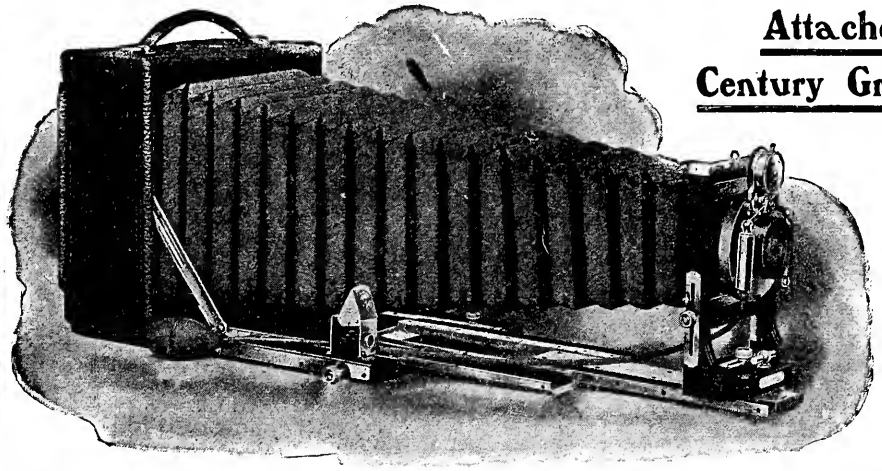
"THE ACME OF PERFECTION"

The GOERZ LENS



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A combination for all kinds of Photographic work

Superior in design and general construction.

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All Successful Newspaper Men use GOERZ LENSES

None "Just as Good."

They can be fitted to all makes of cameras and kodaks, and are the highest type of photographic lens manufactured. Catalogue free from your dealer or—

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BUCK SHOT IN HIGH POWER RIFLES.

Jack Pattern tells Mr. Davis that the reason the latter can not get good results with buck shot in a 30-40 rifle is because he uses too much powder. Yet there is a way of loading buck shot for high power rifles that will prove satisfactory with any charge from 8 grains to a shell full. Select a shot of a size which when wrapped in a greased patch will fit tight in the shell. For the 30 caliber I use No. 1 buck, running 12 shot to the ounce. Eight grains Laflin and Rand rifle smokeless is a good load for 20 yards. For a 100 yard charge, target or small game shooting, I use 18 grains. Put a light wad over powder to hold it against the primer. Force the shot a little below the muzzle of shell, cut patch flush with the rim and cover with clean tallow. The penetration of this load at 30 yards is 5⅞ inch boards. Buck shot loaded in this way can be used successfully in any gun they will fit, and with any powder charge suited to desired range.

S. N. Jones, Spring Hill, Mass.

I am an old wolfer and trapper, and have used all kinds of guns and ammunition. I have found only one make of gun that will answer for all sorts of game. If my life ever depends on the result of a single shot, I want to fire that from a Winchester. I should be sure it would not jam nor hang fire, nor stick in zero weather. For a hunting arm there is nothing more powerful and accurate than a 30-40 Winchester. I do not like the soft point bullet; it spoils meat. The steel point, well placed, is equally deadly; if not well placed, the animal will recover. Game shot with the soft point will often escape only to bleed to death where it can not be found.

Should like to hear more from Old Trapper regarding scents he has found best for wolves and coyotes.

Old Wolfer, Jordan, Mont.

I will pay cash or give liberal exchange for interesting unmounted photographs, any size, either amateur or professional. Wilfred S. Tilton, Prairie Depot, Ohio.

50c. PER 1000

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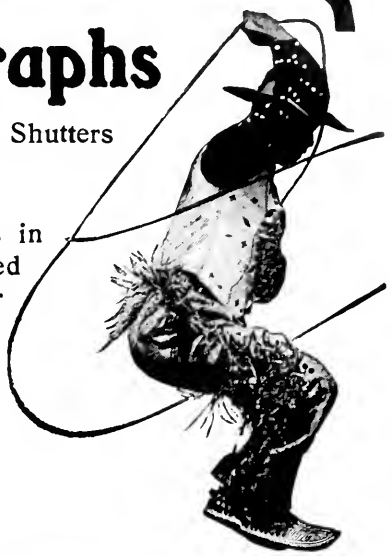

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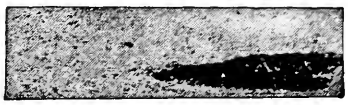

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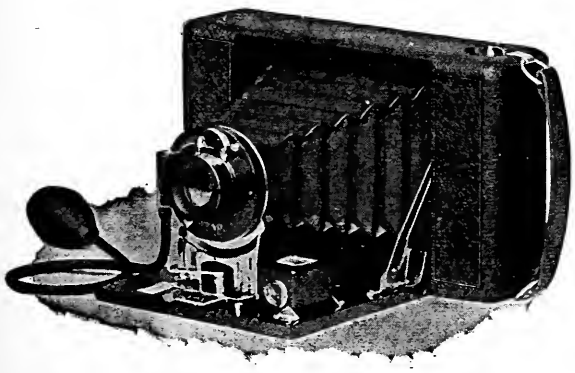

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No. 3 Folding Weno Hawk-Eye, with double R. R. lens, not loaded, $15.00

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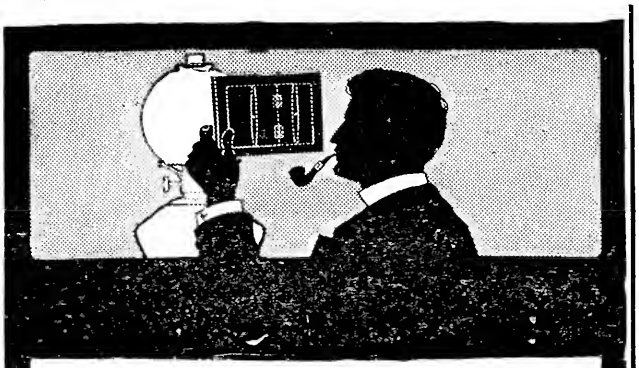

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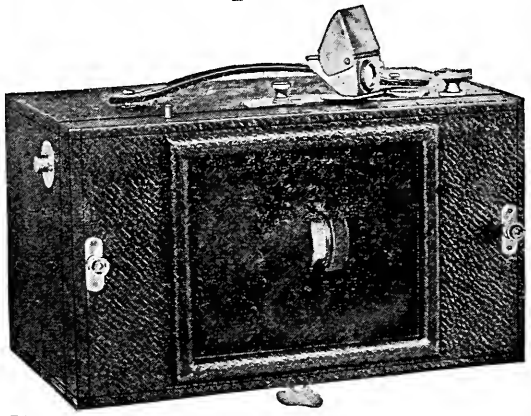


If so, would you like a Camera that will photograph

A whole range of mountains
A whole sweep of river
A whole army
A whole fleet of ships
A whole city

Or any other vast stretch of scenery or moving objects? THE SWING LENS DOES IT.

The AL VISTA

Is the thing. It lists at $30.

One of the greatest inventions of the age.
Given as a premium for 20 Subscriptions.

For particulars address

RECREATION, 23 West 24th Street NEW YORK CITY.

I am delighted with the Savage rifle you gave me for obtaining 40 subscribers to RECREATION. Have handled many good guns in my day, but the Savage is the best of all. I was amazed on learning how many people here are getting subscriptions to your magazine. Still, I had no trouble in filling my club.

Ed. Smith, Schenectady, N. Y.

I received the Pooler cartridge belt you sent me for 2 yearly subscriptions to RECREATION, and find it O. K. Please accept my thanks.

C. D. Henderson, Chicago, Ill.

I am grateful to you for the arrangement whereby a man of limited means may earn one of your splendid glasses by hustling for RECREATION.

F. A. Rice, Rochester, N. Y.

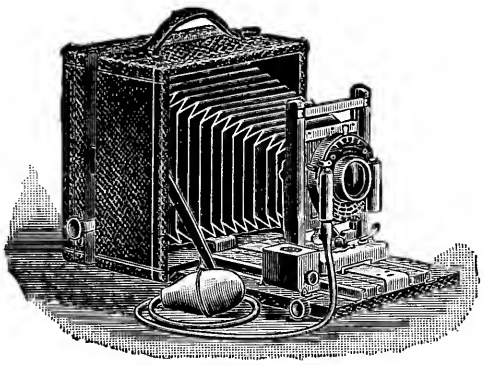
I received the Bristol steel fishing rod and the Wizard B camera. Have tried them and am much pleased with both.

Charles Crary, Three Rivers, Mich.

When you hear of someone having criticised you, or spoken unfavorably of you, put it down that the person so speaking considers himself your inferior. We never have time to waste in criticising anybody but our superiors.—**Yoakum (Tex.) Herald.**

IT'S ALL IN THE LENS

Series V Long Focus Korona



Can be used with equal facility for everyday, hand-camera

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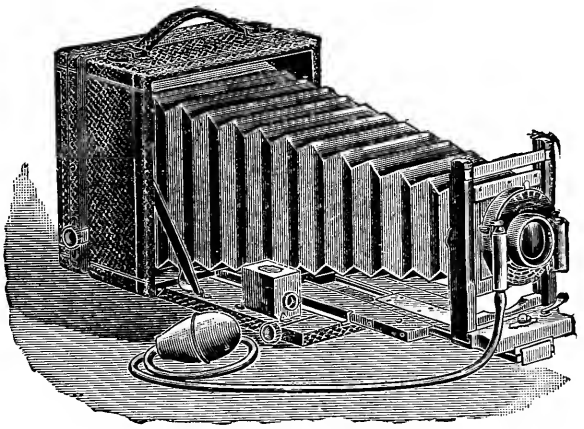
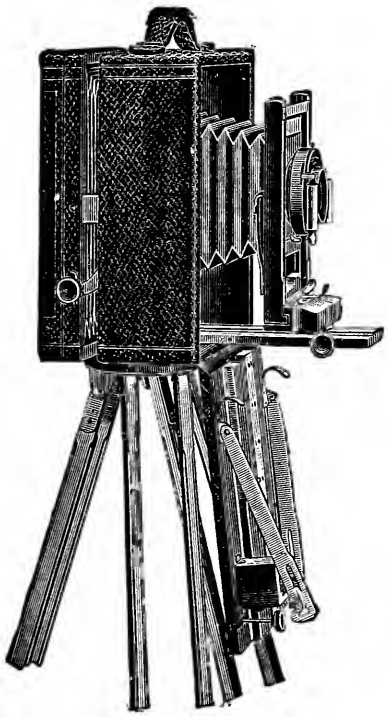
or other work needing bellows capacity, and also with wide-angle lenses for interiors and kindred subjects.

ONE CAMERA DOES IT ALL

Every adjustment is a marvel of simplicity and mechanical ingenuity, and many of them are found exclusively on the Korona.

Note our patent auxiliary bed for use with wide-angle lenses, and compare it with





the clumsy methods used to obtain this result on other cameras.

Our patent automatic swing back operates from the center according to correct principles.

KORONA LONG FOCUS

Has a Convertible Lens, Automatic Shutter, and numerous other special advantages.

Catalogue gives full information

Gundlach Optical Co.

ROCHESTER, N. Y.

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Every step in picture taking and picture making taught by mail.

The Kodak Correspondence School of Photography

treats both the technical and artistic sides of photography in a simple, practical manner. Tuition free to all owners of Kodak and Brownie Cameras upon payment of One Dollar for text books. Competent instructors will give individual attention and honest criticism to each member of the school.

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Circular by mail upon request.

$4000.00 in prizes for the best Kodak and Brownie Pictures.

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HENRY NELSON, ECKVOLL, MINN.

Free: For 1 year's subscription of RECREATION, through me, will give 1 Bromide enlargement, any size up to 11x14 inches inclusive, from any negative not larger than 4x5; or from photographs. Negatives and Photos to be returned to the owner. Here is a rare chance to get a large Photo from your pet Negative, also RECREATION for $1. A. F. Evarts, Meriden, Conn.

Huron Indian Work: To any one subscribing to RECREATION through me I will give a Bracelet and Ring worked in horsehair, with any small inscription you like, your name, etc., woven in it with caribou hair; quite a curiosity, Send along your $1. Walter Legare, 518½ John Street, Quebec, Canada.

LEST YOU FORGET, IN A FIT OF ABERRATION, I SAY IT AGAIN, PLEASE MENTION RECREATION.

It is all in the Lens

Any old box will answer the purpose if it does not leak light; but you must have a fine lens to make a fine picture.

You can get

A Royal Anastigmat Lens, 4x5, Series No. 1

Made by the Rochester Lens Co., Rochester, New York,

And listed at $45, For 40 yearly subscriptions to RECREATION

You can get any other lens made by this Company on the basis of one subscription to each dollar of the list price of the lens.

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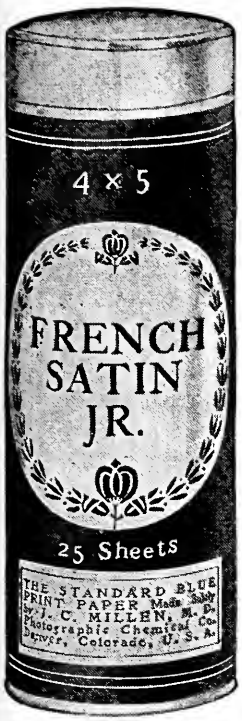
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25 Sheets
THE STANDARD BLUE PRINT PAPER Made only by J. C. MILLEN, M. D. Photographic Chemical Co. Denver, Colorado, U. S. A.

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The standard blue print paper of the world, not the ordinary kind, but a PERFECT paper, perfectly made and perfectly packed in sealed tubes, for

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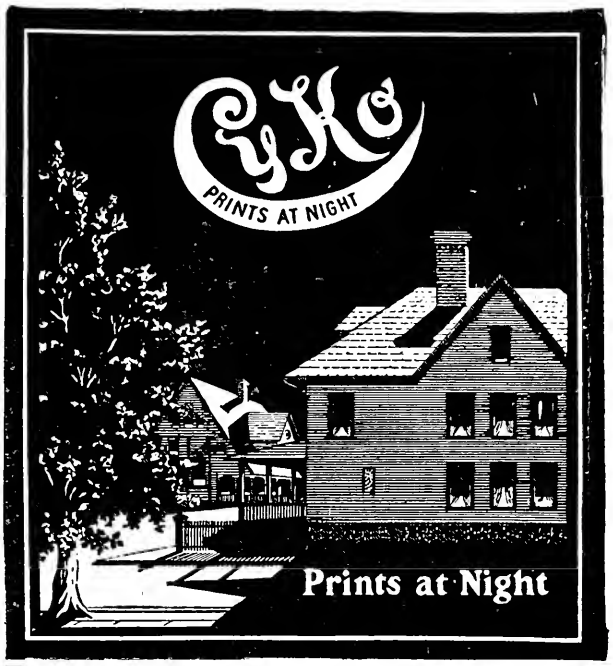

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Art Cycko out-cykos even Cyko. This paper is very heavy and produces the most beautiful of prints.

Doz. 4x5 Cyko, with Developer, 20 cents.
If your dealer cannot supply you, send to

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POLISH FOR FINE CABINET WORK.

Shellac	180	parts.
Sandarac	15	"
Mastic	16	"
Copal	16	"
Rosin	15	"
Absolute alcohol	1,300	"

Mix, set aside in a warm place for several days, or until dissolved, giving an occasional agitation. Then filter. Many of the anilin dyes are readily soluble in the liquid, and may be added thereto when it is desirable. The article is first carefully cleaned and the polish is, after dilution with acetone, applied with a soft pencil.—Professional and Amateur Photographer.

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To any person sending me a subscription to RECREATION, accompanied by $1, I will send one copy of the "Song of Songs," a drama in 5 acts, based on the Song of Solomon. This is an interesting, instructive and elevating play, written by my late husband, the Rev. Morse Rowell, Jr. The book is bound in paper and is alone worth $1. In addition I have arranged with the editor of RECREATION to send the magazine to all subscribers who may send me their subscription on this plan.

Mrs. Belle J. E. Rowell,
Miller Place, L. I.

For Hunters and Fishermen

"PRESTO! – CHANGE!"

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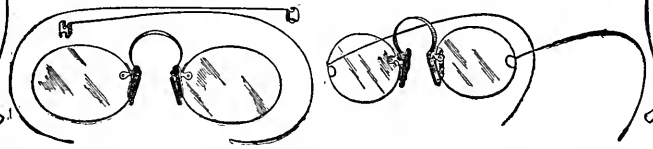

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BE PROTECTED!

DON'T BREAK OR LOSE YOUR GLASSES IN EXERCISE, WIND AND STORM.

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Price in Nickel, 50 cents per Pair. **Price in Gold Plate, 75 cents per Pair.**

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For stockings a "Hold Up" for discomfort a "Let Up"

No Chafing or Rubbing by the Clasp; that's Flat

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FOR MEN

See that "Brighton" is on the clasp. 25 cents a pair. At dealers or by mail.

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For $1.00 I offer as complete a course of Physical Culture as has ever been mailed for $20.

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The REAL SECRETS of
HYPNOTISM

If you want to know the hidden mysteries of this strange mental influence, write us for a copy of our **free book** entitled **"The Philosophy of Personal Influence."** It is written by a man who made a fortune out of professional hypnotism. He fully explains the successful methods he used in private and on the stage, and gives such plain and simple directions that they can be quickly learned at home. He tells **how to acquire the subtle power of Personal Magnetism:** how to exert a marvelous influence over others entirely without their knowledge; how to hypnotize instantaneously—quick as a flash and how to cure diseases and bad habits without drugs or medicine. The book fairly bristles with startling hypnotic revelations. Write to-day. Remember it is absolutely **free.** Address, **New York Institute of Science, Dept. D. M. 12** Rochester, N. Y.

Bronze Medal, Paris Exposition, 1900

Collan Waterproof Shoe Dressing

Hunting Boots made permanently watertight, soft and flexible, never water-soaked, hard and shrunken.

Dry feet for Sportsmen, Golf Players, Mountain Climbers, Explorers and others obliged to traverse wet and snowy fields or stand about in water.

Great for all winter footwear and school shoes. Prevents cracking—shoes outwear others 3 or 4 times.

A boon to ladies wearing *thin-soled shoes.*

Fine for Saddles, Bridles, all Harness. An unequalled Gun Oil, prevents rust, cleans, wipes close.

Sold in tins, BLACK 25c and 45c; YELLOW (for fair leather), 30c and 55c, f. o. b. N. Y. Gross lots and bulk prices special. Sold by dealers generally. Write us direct if your dealer doesn't keep it.

J. R. Buckelew, Sole Agt.
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IS TO

PUT ON THE GLOVES

with some lively, vigorous chap. I have made an arrangement which enables me to offer

A Pair of Boxing Gloves

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For 5 Yearly Subscriptions to
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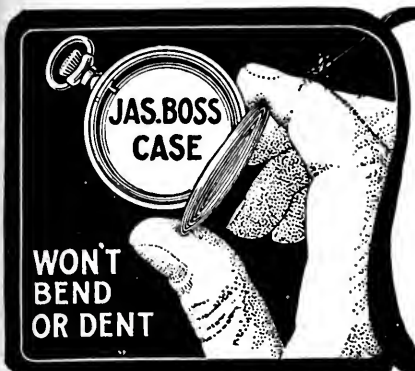
If you want a pair of these useful appliances why not put in 30 minutes in getting 5 subscriptions, thus making your friends pay for the gloves.

Sample copies of **RECREATION,** for use in soliciting, furnished on application.



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JAS. BOSS
Stiffened GOLD Watch Cases

are recognized as the standard by all jewelers. They are identical with solid gold cases in appearance and size, but much lower in price. Don't accept any case said to be "just as good" as the Boss. Look for the Keystone trademark. Send for booklet.

The Keystone Watch Case Company, Philadelphia.

A TEXAN TOUR.

In October last 4 of us started from Dallas on a 3 weeks' tour of Western Texas. Our armament consisted of 4 rifles and 3 shot guns. We had a tepee tent, 7x7, with a 3-foot wall added, necessary bedding, and ample provisions.

Having left the train at Toyah, we engaged W. H. East, with team, to take us to the Southern point of the Guadalupe mountains. We made a 3 days' stay at White's ranch, 65 miles out, resting the horses and getting information. We were lucky enough to kill 2 deer while there. Then we proceeded to the point of the Guadalupes, 20 miles farther, where we spent 4 most enjoyable days roughing it in true Western fashion.

The country traversed North of Toyah is rough and barren. Only one stream, of brackish water, the Cottonwood, was encountered. We killed 5 deer, a large number of Mexican quails, a lot of rabbits, and several coyotes on the trip. Large game is not plentiful in that region. We saw a number of antelope, but as they are protected by law in Texas we did not molest them. Small game, such as quails and rabbits, was abundant.

The ranchmen did everything possible to make our stay enjoyable, and invited us to come again. I recommend that region to lovers of sport and nature, but game hogs would better not go there.

Our smokeless, small bore rifles all proved their efficiency beyond doubt. I took 25 pictures with my 4 x 5 camera, but 12 of them were not good. The others are prized by all the members of the party as remembrances of a most enjoyable trip.

H. G. Hansson, Longview, Tex.

THE OUTLOOK FOR POOR SPORTSMEN.

I am greatly interested in the preservation of our game birds; an object which you appear also to have much at heart. It seems to me, however, that you do not go to the root of the matter. While the enactment of laws, and their strict enforcement, tend toward putting off the evil gameless day, yet that day is bound to come in time. The laws that have had the most effect are: 1st—The abolition of the sale of game; 2nd—The shortening of the open season; 3rd—The tax on non-residents; 4th—The limitation of the size of bags; 5th—the abolition of spring and summer shooting.

These, however, are at best but partial and ineffective measures, for as our country becomes settled the game will leave it or be destroyed. This has been the case in Europe, and is already the case in the older parts of this country.

There is but one hope for the sportsman of the future—perhaps the near future—and that lies in shooting in preserved ground, and in no other way. It has been found the only way in other countries; it will prove so in this.

Already the city sportsman has to choose between joining a club or going to some remote and inaccessible district if he wants sport worth having. This means that it is fast becoming a sport for the rich and leisure class. That class can always take care of itself; but what is to become of the sportsmen who are limited, both as to time and money? It is for that class that these lines are written in the hope that they may prove at least a partial solution of the problem.

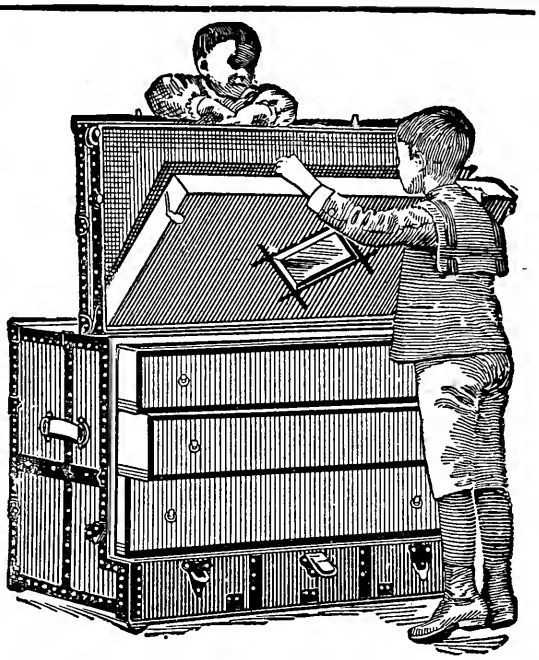
W. W. Fisher, Philadelphia, Pa.

ROOT'S
UNDERWEAR
IS NO FAD.
It is simply thoroughly good underwear, made in the best manner and of the best materials the world affords.
Several weights and qualities, all of sterling value, and made just right for all sizes of grown people and children.
Sold by principal dealers in N. Y. and all large cities.
If not by yours, write to
ROOT'S UNDERWEAR,
1 Greene St.,
New York.

I have been using a '90 model, 25-35 Winchester 4 years and consider it one of the most effective of guns on all game smaller than grizzlies. Out of the last 16 deer I shot, only one escaped. A few, of course, I had to shoot more than once. For small game I reload with lead bullet and 10 grains No. 1 powder, a fine load for rabbits and squirrels up to 35 yards. What powder is used in the factory-loaded 25-35 shell?

C. E. Kimball, Stella, Cal.

IF YOU WOULD LIVE NEXT TO NATURE, READ RECREATION.



Stallman's Dresser Trunk

Have you seen one? It is up-to-date. Think of it, everything within reach. No heavy trays, but light, smooth drawers. Holds as much and costs no more than a good box trunk. Hand riveted, almost indestructible. Once tried, always recommended. Sent C. O. D., privilege examination. 2c. stamp for catalogue. Mention RECREATION.

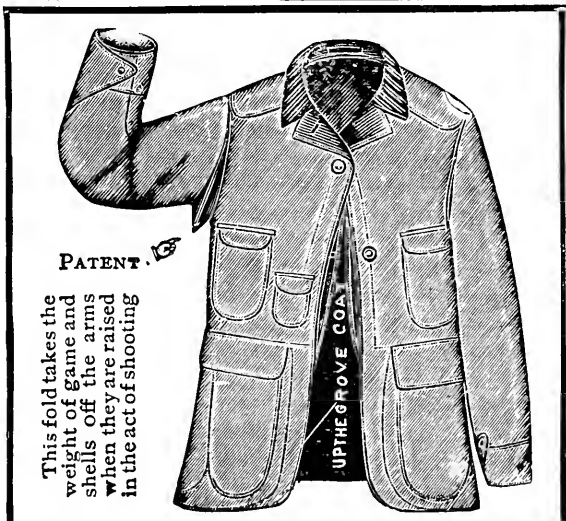
F. A. STALLMAN,
87 W. Spring St., Columbus. O.

What are the shooting qualities of a 32 Remington rifle with 26 inch barrel. I have just come in possession of a rifle of this kind, and should like to hear from RECREATION readers who have used a similar one. Is it all right for deer and antelope, or do I need a harder shooting rifle for that kind of game?

B. E. Burton, Vancouver, Wash.

The rifle you gave me for 20 subscriptions to RECREATION is a beauty, and as for a hard shooter and accuracy it could not be beaten. I also received the can of Collan oil, for which accept my thanks.

J. M. Williams, Kittanning, Pa.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This fold takes the weight of game and shells off the arms when they are raised in the act of shooting
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recommends itself and reminds you that on receipt of your name and address we will mail you our

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containing samples of

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H. J. Upthegrove & Son,
No. 2 Wood St., VALPARAISO, IND.

BURIED BY A COUGAR.

It was a warm day and I had been hunting unsuccessfully since early morning. Toward the middle of the afternoon I began to pine for rest and a pipe. In a little glade in the forest I had a comfortable smoke and then, pulling my hat over my face, I stretched out on the dry leaves for a nap.

It could not have been more than an hour before I awoke, but my first impression was that night had fallen, for I was in absolute darkness. My movements caused a great rustling and not until I rose to a sitting posture did my head emerge from the heap of leaves with which I had been covered. After finding my gun and pipe I sat down to think the business over. I finally concluded I had been cached for future use by some animal, and I determined to see the adventure through.

I piled sticks and brush into a heap about the size of a man and covered them with the leaves. Then I shinned a tree close by and, sitting astride a branch, made sure there was nothing wrong with the action of my Savage.

It was just as well that I awoke when I did, for I had been but a short time in the tree when a large female cougar appeared, followed by 2 half grown kittens. Going straight to the pile of leaves, she circled it several times, crouching and apparently selecting a good place to spring from. When she made the leap she went through the air like a flash, scattering the leaves in a whirlwind and scratching and snarling. When she had cleared the ground without finding what she wanted, she did not stop to display disappointment. Instead she cast about, struck my scent and came direct to my tree.

Seeing me sitting there, awake and gun in hand, her courage failed or perhaps her cunning taught her better. Feeling sure I had her, any way, I waited to see what she would do. After a moment's pause she began climbing a tree a few yards from mine, evidently intending to get above me and bring me down with a flying leap. Whatever was her idea, I did not wait to see its development, but at the first chance put a bullet through her jaw and chest that stopped her climbing, for good.

Alwin Frache, Waneta, B. C.

I have had practical experience with many standard shot guns, and consider the latest model Ithaca, with its extra thick breech, skeleton concaved ribs, reinforced frame, new stock fastening and new cross rib bolt by far the best in all around good qualities. I advise any prospective purchaser to examine one of these improved guns before buying another make.

M. Byram, M.D., Richmond, Mo.

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is the stuff
Life's made of,
take
it from an

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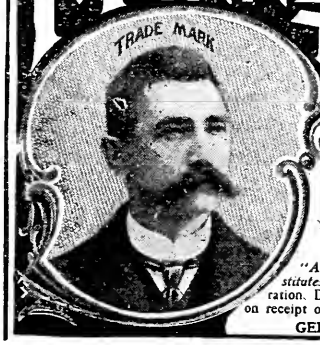

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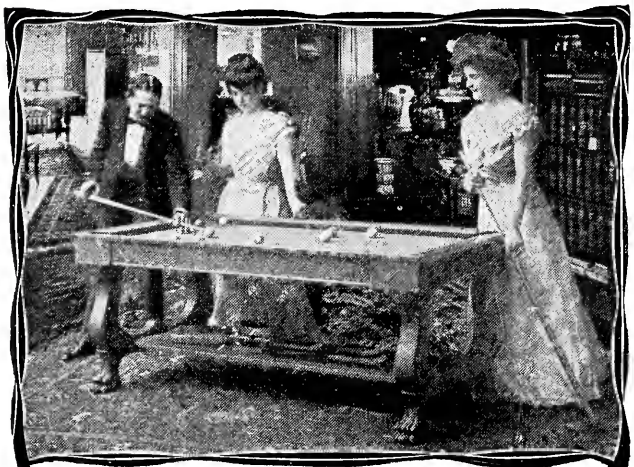

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I have just returned from Wyoming. While there I went hunting. One day we tracked a bunch of deer. When we got a shot at them, they scattered and some ran right toward us. Two passed within 50 yards, a doe in the lead and a buck about 50 yards behind. The buck I shot. Later the same day we shot at a bunch of 7. They ran up a hill where we could see them plainly; the does were in the lead with 2 bucks in the rear, one behind the other.

If anyone going hunting in the Big Horn mountains wants a good guide I can tell him of one. He is a good camp cook and a jolly fellow.

Geo. L. Smith, La Moille, Ill.

GAME IN LUZON.

The Laguna de Bay, a large lake in Southern Luzon, P. I., is the breeding place and feeding ground of countless ducks, plover, snipe and many kinds of cranes and herons. Except the ducks, all are found there on the shores the year round in great abundance. The plover and snipe are extremely tame, not having been hunted to any extent.

There are 4 varieties of duck; the most abundant being a small black and gray bird the size of the American teal. They are tame and unsuspicious. The larger ducks are wild and prefer the outer reefs and rough water. These ducks remain from November until March, and go elsewhere during the rainy months. I have not a sufficient knowledge of ornithology to name these different varieties.

Last March, while running a telephone line through some rice country, I was fortunate enough to see a pheasant feeding in a rice field. Have not seen any since, though I am still on the lookout. There are numerous woodcock in the valleys and along wooded streams; I have scared up as many as 50 in a morning's work. This part of the island is well stocked with feathered game.

"Sharpshin," San Pablo (Laguna), P. I.

I received the Harrington & Richardson revolver and am well pleased with it. Also the book, "Hunting in the Great West," which is extremely interesting.

J. H. Young, Pierce, Pa.

I received the Syracuse gun O. K. and like it very well. It is a strong shooting gun and better than I expected in every way. W. F. Chambers, Redfield, S. D.

We are much pleased with results from our modest advertising in RECREATION.

The Malcolm Rifle Telescope Mfg. Co.,
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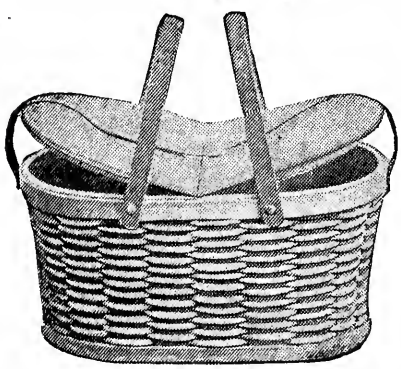
Lined with zinc, hair, felt and asbestos. Air-tight and dust-proof. A small quantity of ice



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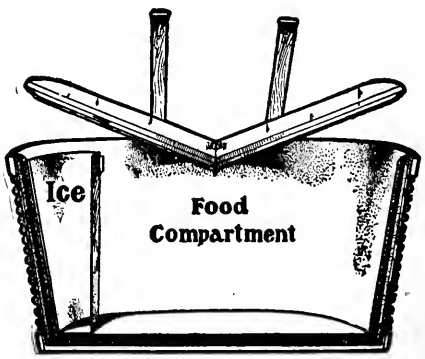
Ask your dealer for it, or will send C. O. D. subject to inspection. Write to-day for booklet giving full description.



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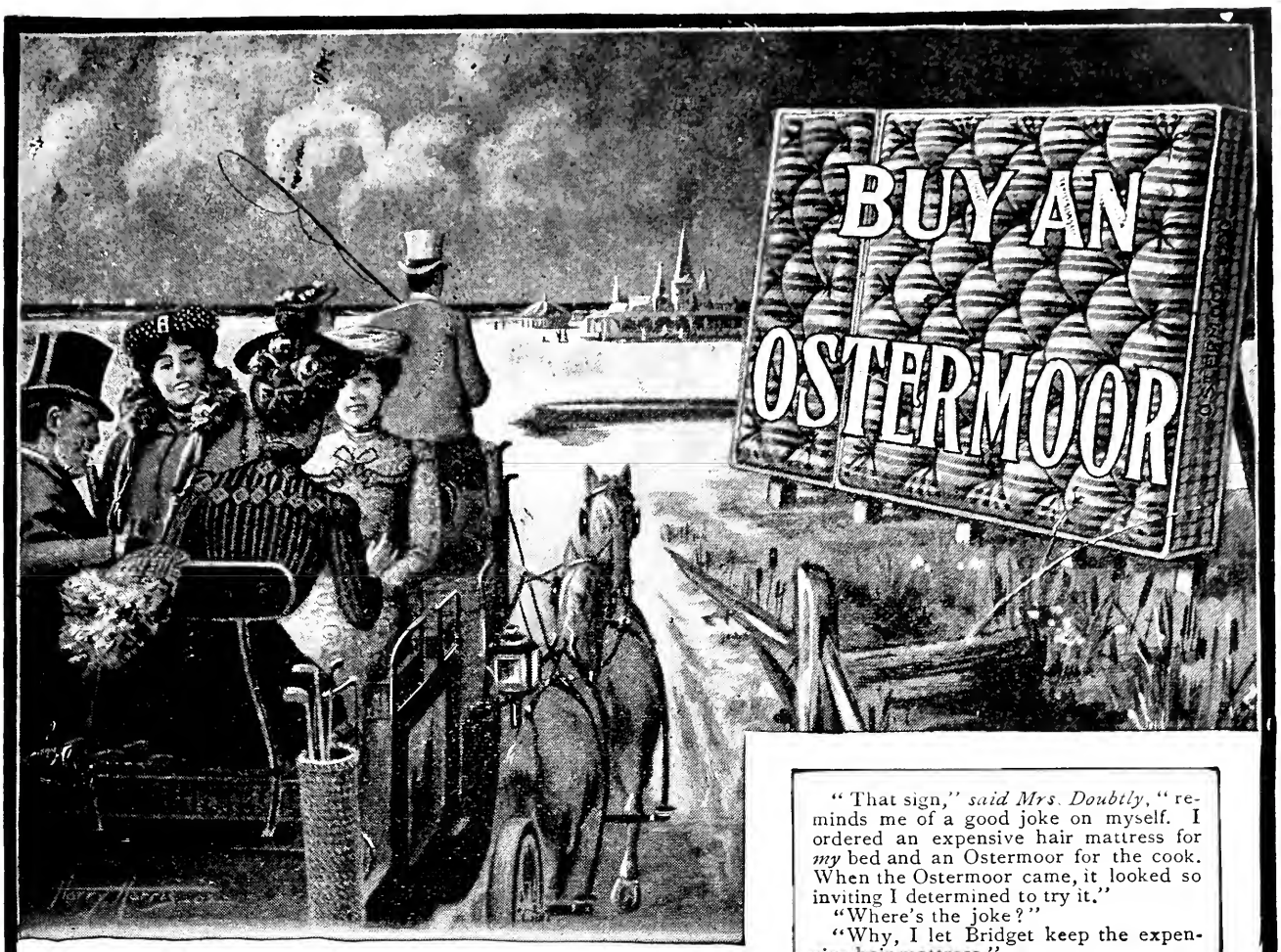

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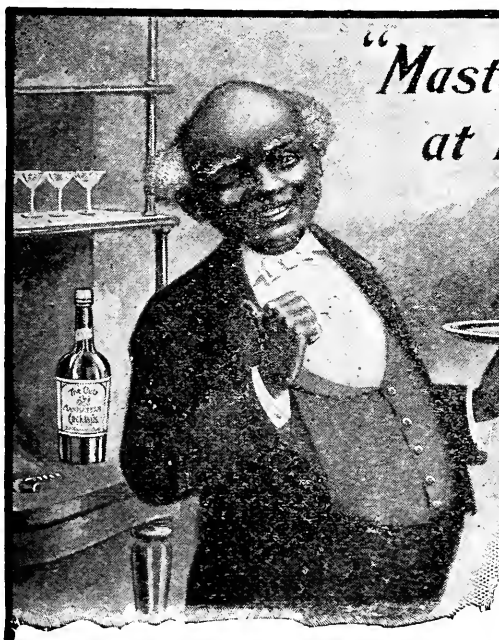

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Pour over lumps of ice, strain and serve

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TWO yearly subscriptions to RECREATION at $1 each, I will send a copy of *Hunting in the Great West*, cloth; or a Zar Camera, listed at $1; or an Ingersoll Watch or Cyclometer, listed at $1; or a Recreation Waterproof Match Box, made by W. L. Marble and listed at $1; or a Shakespeare Revolution Bait listed at 75 cents; or a Laughlin Fountain Pen; or a Cartridge Belt listed at $2; or a dozen Trout Flies, assorted, listed at $1; or a Stonebridge Folding Aluminum Lantern, listing at $1.50.

THREE subscriptions at $1 each, a copy of *The Battle of the Big Hole*, cloth; or a safety pocket ax, made by W. L. Marble and listed at $2.50; or a dozen Bass Flies, assorted, listed at $2; or 4 dozen Carbutt plates, 4x5 or 5x7.

FOUR subscriptions at $1 each, a copy of *Camping and Camp Outfits*, cloth; or a Khotal Oil Stove, made by the Hydro-Carbon Burner Co., listed at $4; or an Ideal Hunting Knife, made by W. L. Marble and listed at $2.50; or a .32 caliber Automatic Forehand Revolver, made by the Hopkins & Allen Arms Co.

FIVE subscriptions at $1 each, a copy of *Cruisings in the Cascades*, cloth; or a set of Nehring's Convertible Ampliscopes, listed at $5.00; or an Ideal Hunting Knife made by W. L. Marble, and listed at $3; or a polished Buffalo Horn Gun Rack, made by E. W. Stiles; or a Conley Combination Hunting Coat, listed at $8.

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SEVEN subscriptions at $1 each, a copy of *The Big Game of North America*, or of *The American Book of the Dog*, cloth, or one set Lakewood golf clubs, 5 in number, listing at $5.

EIGHT subscriptions at $1 each, a 4x5 Weno Hawk-Eye Camera, made by the Blair Camera Co., and listed at $8.

NINE subscriptions at $1 each, an Acme single shot gun, made by the Davenport Arms Co., and listed at $8.

TEN subscriptions at $1 each, a Cut-Glass Salad Bowl, made by Higgins & Seiter, and listed at $4.50; or a Yawman & Erbe Automatic Reel, listed at $6 to $9; or a Bristol Steel Fishing Rod, listed at $6, or less; or a Single Barrel Shot Gun made by Harrington & Richardson Arms Co.; or a Waterproof Wall Tent 7x7, made by D. T. Abercrombie & Co., and listed at $8; or a canvas hunting coat, made by H. J. Upthegrove & Son, listed at $8.

TWELVE subscriptions at $1 each, a Peabody Carbine valued at $12; or a No. 5 Sidle Telescope Rifle Sight, listed at $18; or a Davenport Ejector Gun, listed at $10.

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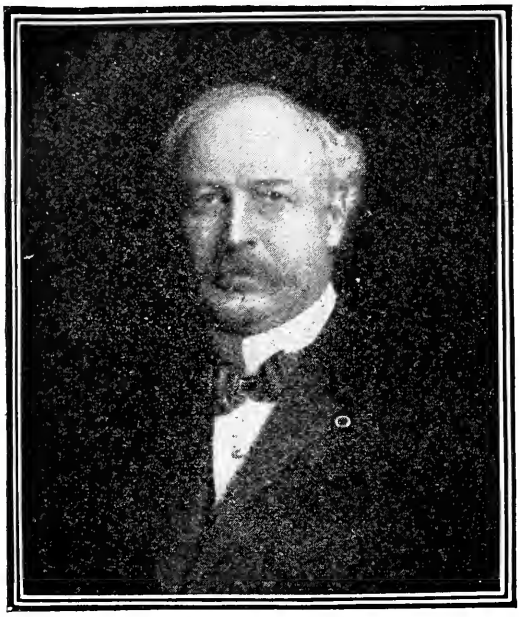

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I have a 30-30 Savage, and while I like it above all other quick twist rifles, I have been unable to get good results from the gun. I have used U. M. C. cartridges. Sometimes the gun will shoot 2 or 3 shots all right, and then maybe it will go off the mark a foot or more. Will someone who has a 30 Savage tell me what cartridge gives best results?

A. F. James, Salida, Colo.

Free: I will print 50 visiting cards for any one who will send me a subscription to RECREATION, accompanied by $1. Send stamp for sample card. D. J. Finn,
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I received the Shattuck gun you sent me as premium. It is a beauty and am more than pleased with it. I heartily thank you for your kindness to me.

E. C. Chandler, Deep River, Conn.

I received the Davenport gun you sent me as a premium. It is a strong, hard shooter, and I am more than pleased with it.

O. J. Canfield, Perry, N. Y.

I received the T. H. Guthrie hunting boots and find them entirely satisfactory. Thank you for promptness in sending them.

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Golf and Country Club-Houses should fit into their picturesque surroundings as harmoniously as possible, and nothing will accomplish this as perfectly as the soft, natural tones of

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Browns and grays to match the bark and rocks and weatherbeaten wood, greens to match the moss and foliage, dull reds for autumn effects, etc. They wear as well as paint, are cheaper, easier to apply, and preserve the wood better. Samples of stained wood, and litho-watercolor chart of harmonious combinations sent free.

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A BUNCH OF COONS.

One evening last fall, some of the boys asked me to go on a coon hunt. They said they had heard my dogs were good for that work. I thanked them for the compliment to the dogs, and when they assured me I was included in it I decided to go with them. We had scarcely reached the woods before old Shep, one of my foxhounds, opened up. We found him barking up a tree. He makes no noise when on a trail, but when he trees a coon there is music. We cut the tree down. As it struck the ground, the coon jumped out and Shep nailed him.

About a mile farther South we reached another body of woods. As we were crossing the road, one of the dogs struck a trail. We let them all go, and Shep soon opened up again. We reached the tree, and by the light of our torch, saw eyes shining. John shot at them, but without result. He fired again, with no better success. We went to the other side of the tree, and John got a clear view of a black bunch. As the third shot rang out, 3 coons came down. One was dead, the other 2 were wounded and the dogs soon finished them.

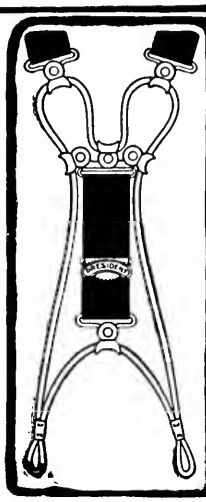
We divided up the load and went across into Snucker's woods, where the dogs found more trouble. They soon ran a nocturnal marauder into a tree, which we assailed with our axes. It fell into another tree and lodged. We failed to get the coon, but as we had 4 already, for 4 hours' work, we were content.

O. H. Lloyd, Berryville, O.

When I became the owner of an old muzzle loader, about 8 gauge, I got some powder, shot, paper and caps, and started on my first squirrel hunt. After hunting 4 hours I spied a red squirrel. I laid my gun down and looked for a stick with which to knock him out of the tree. I got one and started for the tree, but could not see the squirrel. I went back and picked up my gun and sat down to wait for another sight of him, resolved to shoot him if I saw him. In a minute the little fellow ran out of my gun barrel with the charge in his mouth. It wasn't much of a day for squirrels either. My gun was an awful one to kick. She would jump out of my hands to the ground and kick for 15 minutes. But for all her faults she was a good shooting gun. One day my brother took a bushel of potatoes, got up on top of the barn and poured them down. I fired and put a shot in each one of them before they touched the ground. I wasn't feeling well that day either.

W. H. Gordon, Kennebunk, Me.

An anonymous letter is just about as effective as a blank cartridge. It may go off, but it does neither harm nor good. People who have not the courage to sign what they write should remember this and save their postage.



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Mosquitoes' Parade, Two-Step.
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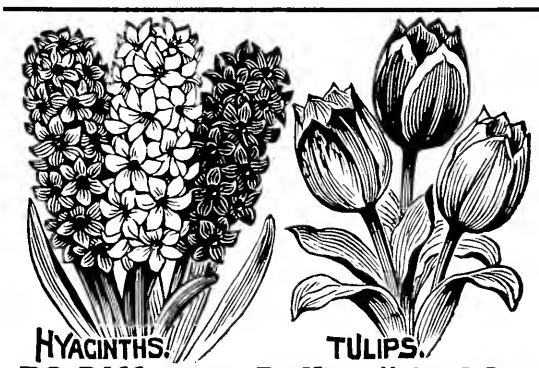

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All different colors, and fine flowering hardy bulbs.

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New Winter flowering Plants and Bulbs, Crimson Daisy, Blue Coleus, Cardinal Freesia, Branching Tulip, etc.

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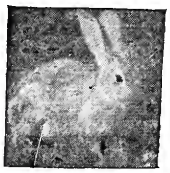
AT DOCTORS H. R. PHILLIPS & WREAN'S RABBITRY, Penn Yan, N. Y., we breed for FOUNDATION STOCK



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ATTENTION SPORTSMEN!

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Highest Prices Paid. Send for Quotations.

If you want the highest possible market prices ship to
B. BERNARD, 150 Bleecker St., New York.
I also buy Raw Furs and Skins in season.

FLORIDA BIRDS

Collectors will note that many of our species have been recently added to A. O. U. list.

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FINE MOUNTED GAME HEADS, BIRDS, ETC., for sale at unheard-of prices. Send 10 cents for photos.
JOHN CLAYTON, Taxidermist, Lincoln, Maine.

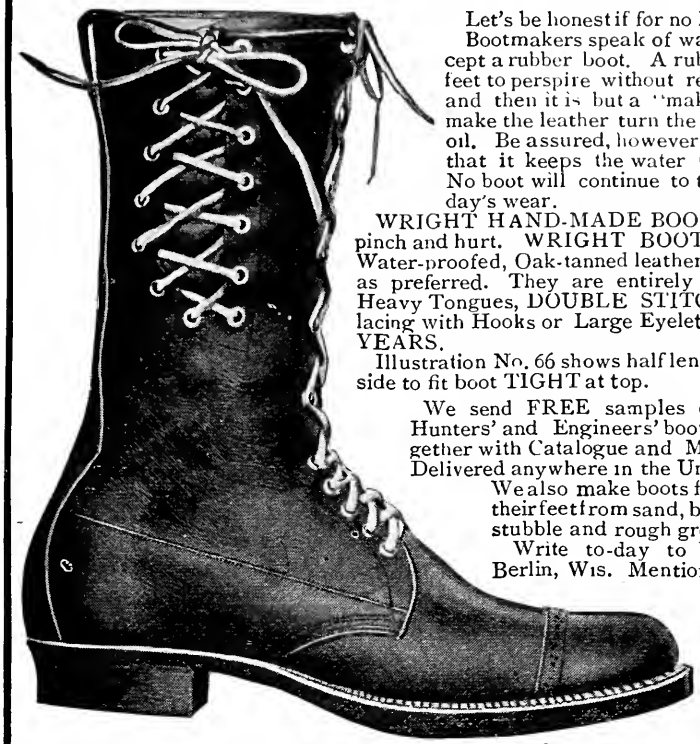
I received the Hawkeye camera, and think it a fine reward for the little work I did to get it. I thank you for your promptness in sending it and in answering my letters. Howard S. Burnell, Saco, Me.

I received the Syracuse gun sent me for 30 subscriptions to RECREATION, and thank you for it. Am more than pleased with it. Frank W. Lane, Boston, Mass.

Wanted: A number 3 Pocket Folding Kodak, with high-grade lens. Lawrence Patterson, Greenville, S. C.

THE RIGHT BOOTS ARE THE WRIGHT BOOTS

"Wright Wrongs No Man"



Let's be honest if for no higher reason than that it PAYS.

Bootmakers speak of waterproof boots. No boot is waterproof except a rubber boot. A rubber boot is hard to walk in and causes the feet to perspire without relief. A hole is soon made in a rubber boot and then it is but a "makeshift." All that any bootmaker can do to make the leather turn the water is to treat it with good, old fashioned oil. Be assured, however, that if the leather is saturated to the extent that it keeps the water OUT it will also keep the perspiration IN. No boot will continue to turn the water unless it is oiled after each day's wear.

WRIGHT HAND-MADE BOOTS FIT THE FEET, where "readymades" pinch and hurt. WRIGHT BOOTS are Hand Sewed and have best quality Water-proofed, Oak-tanned leather soles. We "waterproof" our boots or not, as preferred. They are entirely hand-made and show the hide grain, have Heavy Tongues, DOUBLE STITCHED BOTH SIDES. They are fitted for lacing with Hooks or Large Eyelets, as desired. OUR BOOTS WEAR FOR YEARS.

Illustration No. 66 shows half length leg, 14 inches high, wide leather laces at side to fit boot TIGHT at top.

We send FREE samples of leather used in our Hunters' and Engineers' boots for your selection, together with Catalogue and Measurement Blanks. Delivered anywhere in the United States for $6.50.

We also make boots for dogs to protect their feet from sand, burrs, cactus needles, stubble and rough ground.

Write to-day to Wright Company, Berlin, Wis. Mention RECREATION.

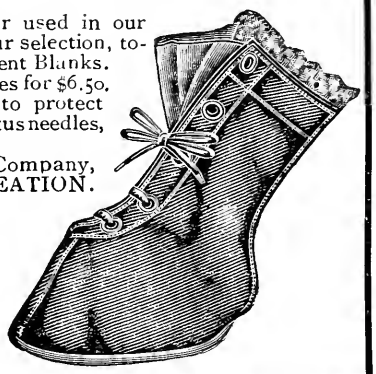


ILLUSTRATION NO. 66. $6.50

The 25-20 is a fine gun and, with a special bullet, is powerful enough for elk and black bear. To make the special bullet, put a bit of paper 3-16 inch wide in the mould in such a way as to split the head of the bullet to within 1-10 inch of the point. The solid point will insure accurate flight, and the ball will split on striking game, with all the tearing effect of the large calibers. I have torn the shoulders of large black bear to pieces with that bullet. For game under grizzly I ask no better gun than the 25. Ducks are fairly plenty here and I kill my share with a 16 gauge. Small bore weapons, both rifles and shot guns, are exceedingly popular in this part of the country. J. D. V., Westport, Wash.

"Well, Ethel, what did you find at that fire sale?"

"Oh, Edgar, I got some lovely silk stockings at 17 cents a pair! There is not a thing the matter with them except the feet are burned off."—Detroit Free Press.

I received the Guthrie hunting boots and they are away beyond my expectation. They are soft as a glove and the best I have ever seen.

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Pattern 28 4¾ lbs.

Absolutely Waterproof

A Gentleman's Rain Coat

"Can you furnish a GOOD Rubber Coat, not too heavy and yet strong and serviceable, which I can use in my practice as well as on fishing trips; and that will keep me dry?"

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This order we filled with a "Banner" Rubber Coat, Pattern 28, and six months later the Doctor said: "It is just what I want and is the only coat I ever found that would Really Shed Rain."

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Give chest measure over ordinary coat

Mackintoshes and Rain Coats made to order
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DEAR SIR: Enclosed $1 for membership fee for one year.

I certify that I am eligible to membership in the L. A. S. under the provisions of the constitution, and refer to 2 League members (or to 3 other reputable citizens) named hereon.

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For Sale: One 32-40 Winchester single Rifle, new; full set of No. 3 Ideal Tools; Lyman sights. Write for full description and price. Also, 60 acres of good land in Western North Carolina, with good house and plenty of good water, within five miles of the county seat; title perfect. Plenty of small game. Send for description and price. J. R. Haynes, Brevard, N. C.

For Sale: A double-barrel breech-loader 12-gauge Shot Gun, laminated twist barrels, good action and good shooter, left barrel choke bored; cost $10, new. Price. with loading tools, $10. Also 32-40 Winchester carbine, 20-in. barrel, 7-shot, in good condition and good working order. Price, $8. Nelson Wilber, Oakland, Oregon.

For Sale or Exchange: 30 Pointer and Setter puppies; all eligible, large, strong and handsome; $8 and $10 each; will exchange one for a tent, $22 Marlin, Angora goat, sleeping bag, A1 field glasses, or Luger Automatic pistol; send stamp for list. W. Scott Jones, Milton, Fla.

For Sale: Baker Hammerless Gun, grade A, 10 gauge, 30-inch barrel, weight 9 lbs., in fine condition; will sell for $30 and give with it a B. G. I. No. 5 crimper, shell rest, cleaning rod, loading tools and about 50 new Winchester leader shells. B. P. Lomberger, Clover Lick, Pocahontas Co., W. Va.

For Sale or Exchange: 1 long-focus 5x7 Camera, convertible R. R. lens and shutter; 1 30-40 model '95 Winchester, and 1 model '97 Take-Down Winchester Shot Gun, new. In fine condition. All letters answered. R. G. Merrill, Abilene, Kas.

For Exchange: A fine toned violin and case, both new, case lined with plush, for camping outfit, tents, boats, etc. Address at once, W. E. Perrigo, 8 Latham's Court, Burlington, Vt.

For Sale: 30-30 Savage Rifle with reloading tools and 22/7½ Winchester Repeating Rifle; both new. Albert Schwemberger, New Albany, Ind.

For Sale: Thoroughbred English Pointer Pups, two months old; beautifully marked liver and white, males, $15. H. J, Holthoefer, 3160 State St., Chicago, Ill.

For Sale: Schuetzen Winchester Rifle, model 40-90, Sharp's Straight, with reloading tools; rifle is as good as new. Elting Rosencrans, Walden, N. Y.

For Exchange: Six-point buckhead, mounted, for .303 or 30-30 caliber Savage, in good condition. G. A. Henderson, Herkimer, N. Y.

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Putman Boots are in use in nearly every civilized country in the World. They are Genuine Hand Sewed, Water Proof, Made to Measure, Delivery charges prepaid, and cost no more than others. Send for Catalogue of over **30 different styles** of boots. Also **Indian Tanned Moosehide Moccasins.**

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Made to measure and delivered in the U. S., Canada or Mexico for..... $7.50

H. J. PUTMAN & CO.

Send for Order Blank showing how to measure your Foot.

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CONLEY'S COMBINATION HUNTING COAT AND VEST.

The Most Useful Coat to Sportsmen

It is made of the best 8-oz. plain and rubberized duck of dead grass color, and is absolutely water-proof.

Order direct from the factory. The hunter is our only agent.

Rubberized, - $5.00
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You can use it for a long rain coat, a duck blind or sleeping bag. You can save yourself from dampness and cold, which costs money in the end. It will last a lifetime.

Enclose stamp for booklet.
Mention RECREATION.

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GOING DUCK SHOOTING?

IF SO, YOU SHOULD HAVE A

Conley Combination Hunting Coat and Vest

Made of 8 oz. Rubberized Duck, Dead Grass Color

You can use it for

A LONG RAIN COAT

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A DUCK BLIND

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Game pockets and cartridge holders *ad lib.*

Save yourself from dampness and cold.

Send me

5 Yearly Subscriptions to RECREATION

Name your size and I will send you one of these coats.
Sample copies of RECREATION, for use in canvassing, furnished on application.

SURE SHOT

DESTROYS WORMS

The puppy is taken in hand when a few weeks old. It is then that
in a dog's life [illegible] worms must [illegible]

SURE SHOT

is administered. After that it rules as the puppy has intestinal
parasites with which [illegible]. It tones the [illegible] and
animated and strong. *50c. by mail, prepaid.*

Sergeant's Condition Pills

are the best [illegible] to get rid of intestinal and other [illegible]
and [illegible] that a dog is liable to have. It is [illegible]
many [illegible]. It [illegible] you and $1. by mail, prepaid.

Sergeant's Carbolic Soft Soap

is the "best ever" and for sale everywhere, 25c. a [illegible]
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All letters or [illegible] will secure you a [illegible]
Latest Dog Book and Pedigree blank mailed free.

For sale by all Druggists & Sporting Goods Dealers.

POLK MILLER DRUG CO., Richmond, Va. Dept. L.

Wanted. To communicate with a first gentleman who would like to meet with success [illegible] North Carolina deal in water [illegible] the best hunting grounds in that State reasonably and would be glad to contract a party to call over them. Satisfactory references given and required. Address, J. A. Lowe, Lancaster, N. C.

Wanted. A position as trapper or taxidermist in private park, have had 12 years experience in Adirondack Mountains. Am now visiting a few of your agents please write to S. S. S., Box 53, Granville, St. Lawrence Co., N. Y.

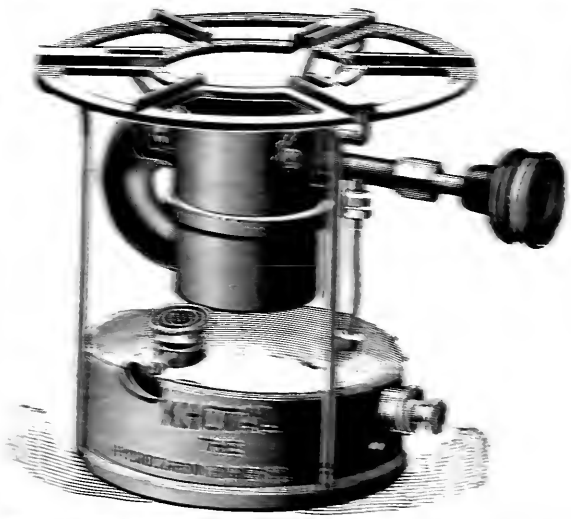
Wanted. To communicate with resident of Rochester who can furnish skins of the Long Eared Skunk which can pay cash and who can furnish same. Address, Answer, care Rochester.

Wanted. A bright, practical writer on general sporting goods trade. Give full particulars as to experience, specialties, moral character and references. Address, Dealer, care Rochester.

Wanted, to buy a few live Gray Squirrels and Flying Squirrels. Address S. S., care Rochester.

COMPACT: POWERFUL:
COOKS ANYWHERE.

The Klondike Camp Stove.



Burns Kerosene

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Price $7.75.

The HYDRO-CARBON BURNER CO.

197 Fulton St., New York.

A BIG COUGER.

In the fall of '96 I was hunting deer on the west fork of Kettle river, B. C. There was some snow on the ground though it was early in the season. I noticed many fresh cougar signs around, some unusually large.

One afternoon, well toward sundown, I came right on 2 large bucks and shot both. I did not skin them, as is my general practice, but just entrailed them, and piled brush and small logs over them to guard against vermin and birds. The next day I took up 2 packhorses to bring in the deer. I found my *cache,* but the game was gone. The thieves—2 cougars—had left plenty of signs and one, judging from the track, was a monster. I hunted about and finally found the remains of the deer. They had been packed in some way, not dragged, fully 100 yards. The smallest would have dressed nearly 200 pounds. I made up my mind to kill those cougars.

The following morning I took my dog and struck out for the carrion. When I got near, the dog was uneasy and wanted to break away, but I knew that if a cougar was feeding there I was sure of him any way, as they will tree from any dog that will give chase. We got within 100 yards of the brute. I put the hound at him and the cougar made 2 bounds, landed about 30 feet up a pine and stopped on the first big limb, possibly 60 feet high. I shot him between the eyes, to avoid any chance of a mixup. At the crack of the gun he dropped and, though brain hit, jumped several feet into the air before falling dead almost at my feet.

I made a rough measurement with my gun barrel, and found him over 12 feet from tip to tip. He was the granddaddy of the whole cougar family in that section, and the largest I have ever seen or heard of.

Some hunters claim that mountain lions and panthers will only eat meat they have killed and will never touch a *cache.* This is one instance, in many that I know, to the contrary.

Jas. Kennedy, Bolster, Wash.

I have a '94 model, 25-35 Winchester, and for a small game and short range target load find the following satisfactory: Thirteen grains DuPont No. 1 rifle smokeless; 68 grain 25-20 bullet, 1 part tin to 16 lead, cast in Winchester mould. Press bullet down to the last groove and crimp tightly, using no wad over powder. These cartridges, though shorter than the standard load, will work nicely through the magazine. Lubricate bullets with beef tallow to prevent leading. In cleaning a rifle never use anything but Winchester gun grease and a rag. With above load and a Winchester 25-35 you have practically 2 rifles, a 25-35 and a 25-20.

A. A. West, Albert Lea, Minn.

A CUTE FOXHOUND.

While hunting one morning on Long hill in Woodstock, Vt., my hound started a 3-tooted fox, which ran about 2 hours and then took refuge in a burrow. The next morning we started the same fox in the same locality. He soon tired and earthed in the same burrow as before.

The third day I took a friend with me, being determined to get the fox if we had to dig him out. On the way we found fresh tracks of another fox. My dog refused to follow them, however, and made off to the ground he had hunted the day before. Within half an hour he had run old 3-feet to earth for the third time. We went to the nearest farm house, procured tools and began digging. The ground was frozen and, even with the dog's frenzied help, we made little progress. Finally the hound backed out of the excavation and began running around it, howling loudly. We could make nothing of such behavior, and we were about concluding that the old dog had gone mad, when he stopped and began digging the snow fully 2 rods from the hole. We thought he had found another outlet to the burrow, but when we had dug to the ground there was no sign of a hole. As it was getting late we stopped up the burrow and went home.

The following morning we found the fox nearly out, but before the dog could get at him he turned and went in. The hound went at once to the place where he left off the night before and scratched the dirt. We decided to help him, and when we had gone through 2½ feet of frozen ground we found a hole large enough for the dog to enter. In he went and presently emerged dragging the fox by the jaw. How did he locate the den under 4½ feet of frozen earth and snow?

A. R. Weerlen, Bridgewater, Vt.

What are the accurate ranges of the following cartridges: Winchester 22-13-45 25-20, and 32-20-115? Have telescope sights any considerable advantage over peep sights for these cartridges?

C. Travis, Phila., Pa.

ANSWER.

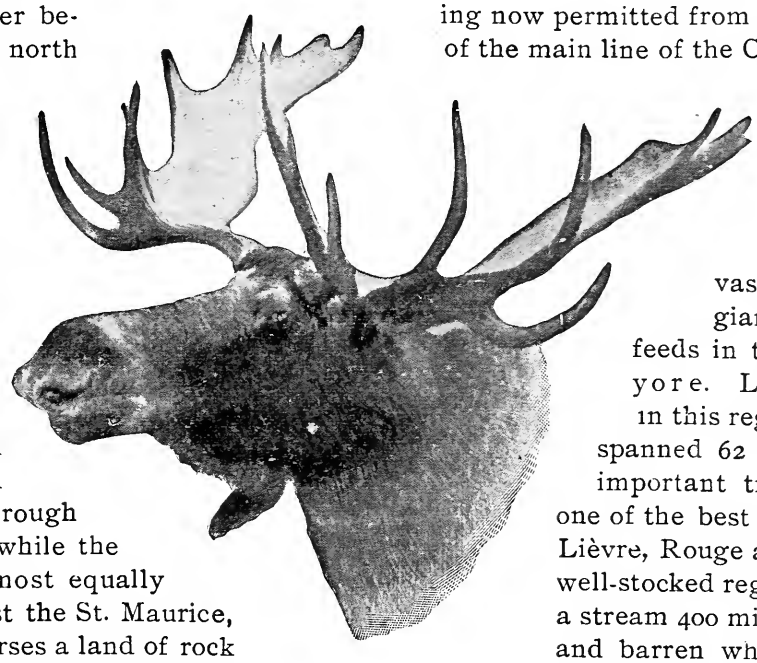
The accuracy of the cartridges named varies considerably. The 22-13-45 is capable of making groups of 7 to 10 shots on a 6 inch ring at 100 yards. The 25-20 and the 32-20 are much more accurate and have given excellent results up to 200 yards. Under good conditions, both should be capable of making 10 shot groups on a 5 inch ring at 200 yards. A telescope sight is now considered an advantage over globe and peep sights with any accurate cartridge, especially in rest hooting.—A. L. A. H.

Canadian Big Game

THE time for the turning of the leaf will soon have come: the velvet on the antler is pealing in long strips, leaving a clean horn the color of buckskin. Soon the law will permit the shooting of the moose, caribou and deer—and wouldn't you care for a head or two yourself?

Well, why not try Quebec, Ontario, Manitoba or some other of the sisterhood of the Canadian Provinces? By such a choice you would probably be successful beyond your expectations, as many others have been. Only the other day a well-known physician of Winchester, Ky., wrote: "I met you last summer at Hotel Bellevue, Timiskaming, and you kindly located a camping party for me on Ostaboining where they had fine sport; getting several moose deer and fine fishing. I wish to get some information regarding, etc."

Equally trustworthy information is **at your disposal.** Ontario has thrown open her jealously guarded big game preserves, the shooting of moose, caribou and deer being now permitted from October 15th to November 15th north of the main line of the Canadian Pacific Railway, from Mattawa to Port Arthur, a region enormous in extent and carrying a heavy stock of game.



The great province of Quebec yet holds its own as the home of vast quantities of deer and the giant bull moose bathes and feeds in the great Lake Kipawa as of yore. Last Autumn a head obtained in this region by a Montreal sportsman spanned 62 inches. The Gatineau, an important tributary of the Ottawa, flows through one of the best deer ranges of the continent, while the Lièvre, Rouge and Nord drain similar and almost equally well-stocked regions.

Further east the St. Maurice, a stream 400 miles from source to mouth, traverses a land of rock and barren which the moose, the caribou and the bear find very much to their tastes.

Manitoba is as noted for its moose as for its duck and chicken, and those who can spare the time may ensure a successful hunt by visiting the Prairie Province. Beyond lie the Territories and British Columbia, with their hundreds of thousands of square miles of plain, forest and mountain, offering unsurpassed hunting for moose, elk, blacktail, sheep, goat and grizzly.

For further information write to any officer or agent of the

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If anyone who may employ one of these guides should find him incompetent or unsatisfactory, I will be grateful if he will report the fact to me.

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H. R. Horton, Flagstaff, deer, bear, moose, caribou, fox, grouse and trout.

MONTANA.

James Blair, Lakeview, elk, bear, deer, trout and grouse.

A. T. Leeds, Hamilton. ditto

Chas. Marble, Chestnut, ditto

Wm. R. Waugh, Darby, moose, bear, elk, deer, sheep, grouse and trout.

A. Leeds, Hamilton, ditto

VIRGINIA.

W. T. Gladding, New Church, quail, snipe, duck and woodcock.

WYOMING.

Frank L. Peterson, Jackson, elk, bear, deer, mountain sheep, antelope, grouse and trout.

S. N. Leek, Jackson, ditto

James L. McLaughlin, Valley, elk, bear, deer, mountain sheep, antelope, grouse and trout.

Felix Alston, Irma, ditto

CANADA.

W. A. Brewster, Banff, Rocky Mountain Park, Can., bear, sheep, goats, grouse and trout.

Wm. S. Andrews, Lillooet, B. C., deer, bear, mountain sheep, goats, grouse and trout.

B. Norrad, Boizetown, B. C., moose, caribou, grouse and trout.

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172 Woodlawn Ave., Buffalo, N. Y.

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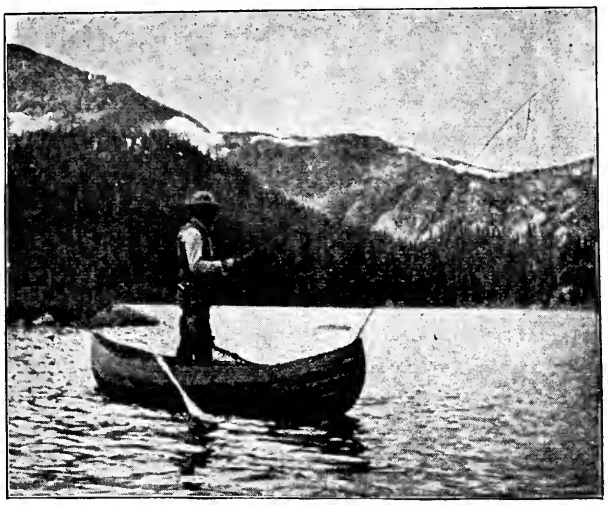

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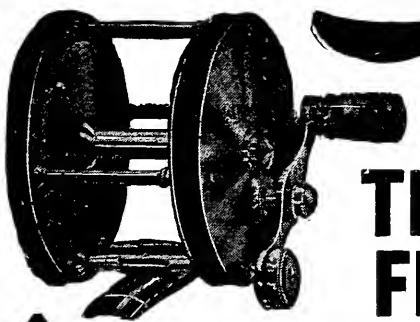

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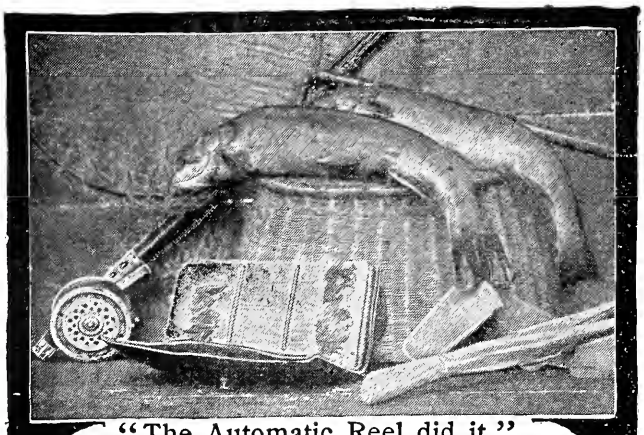

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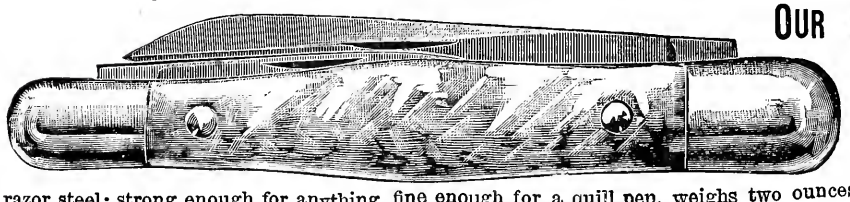

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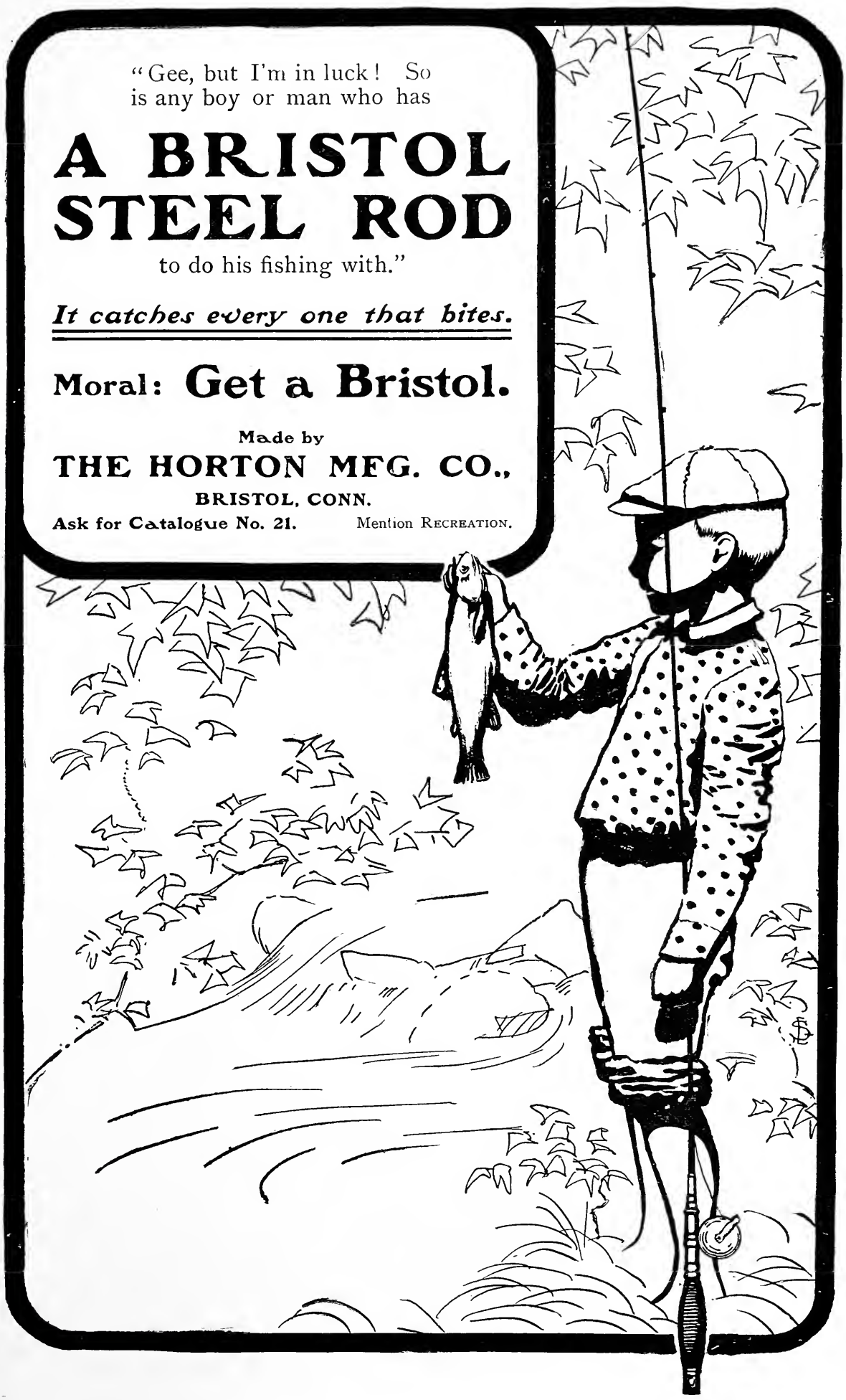

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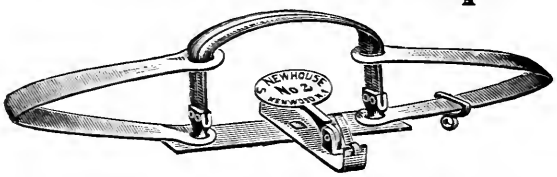

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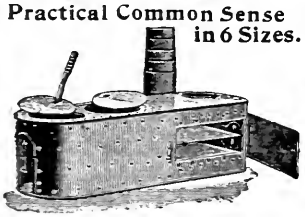

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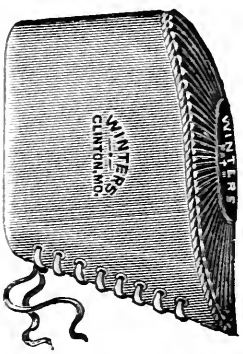

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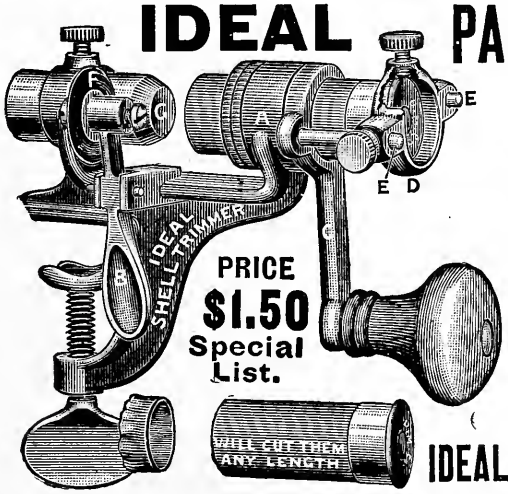

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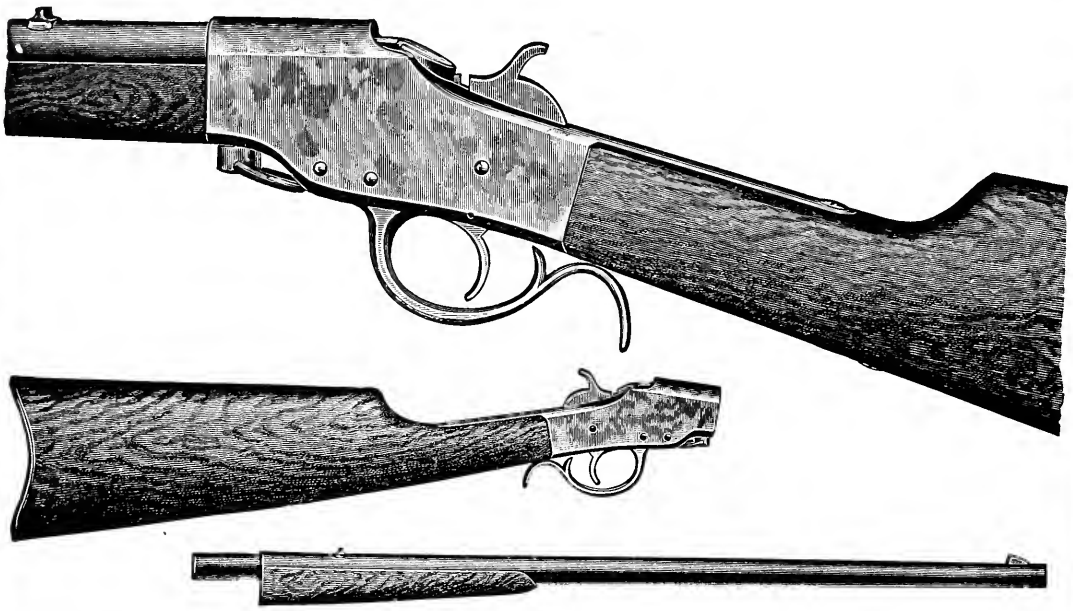

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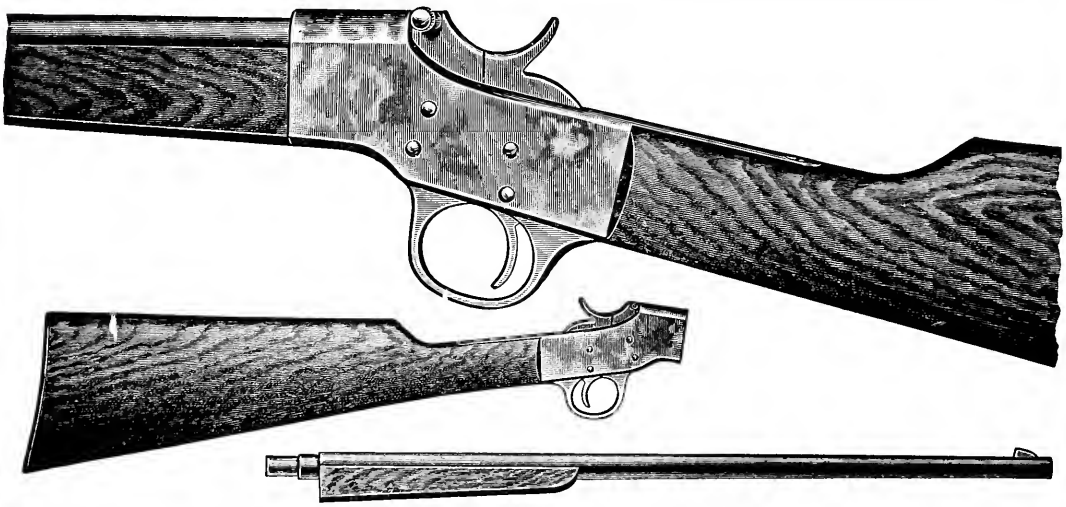

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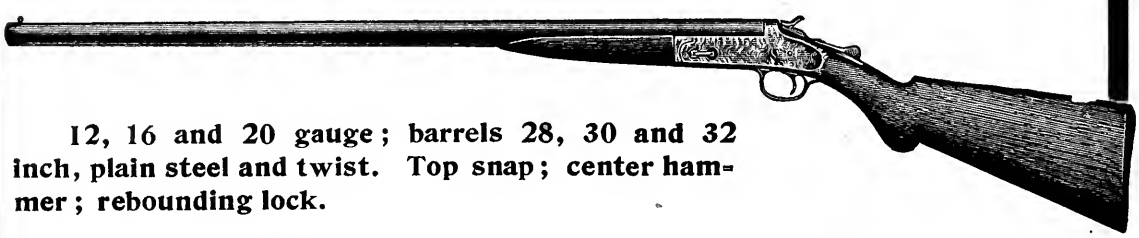

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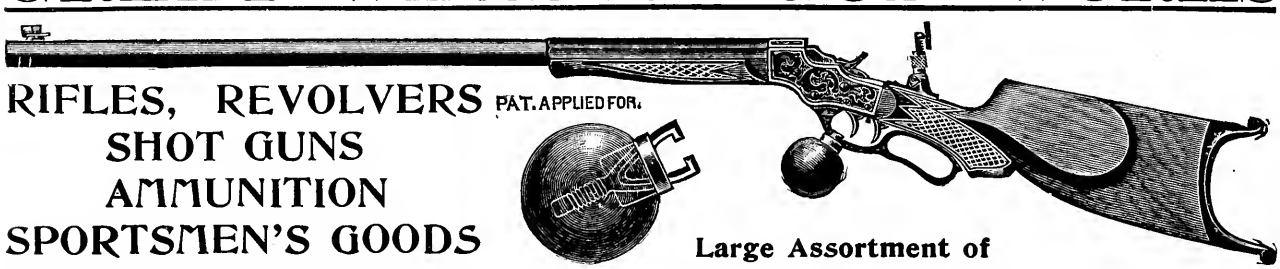

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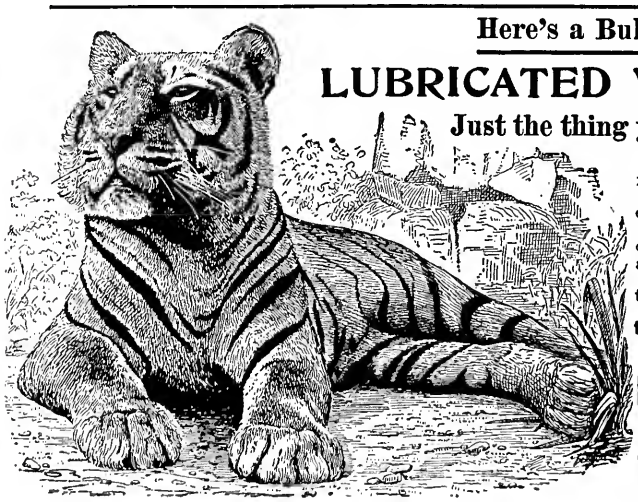

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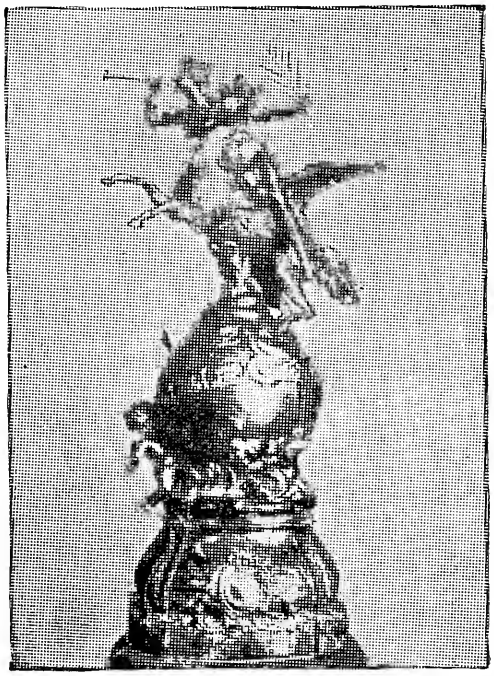

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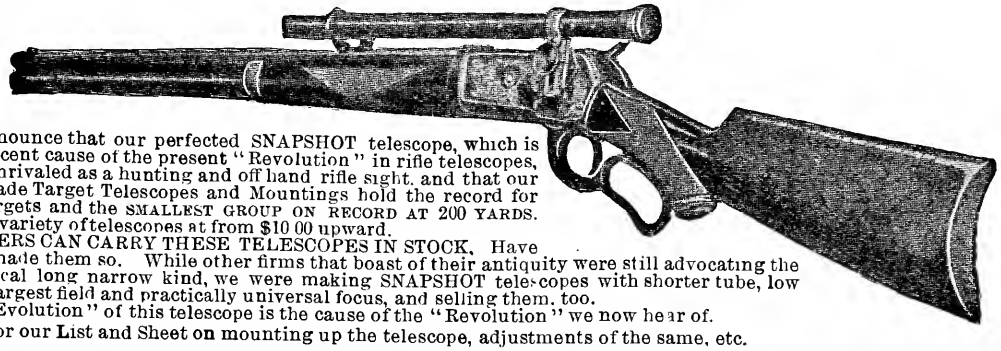

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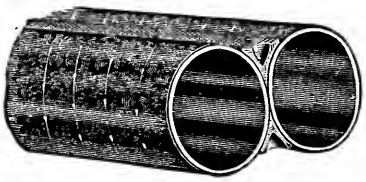

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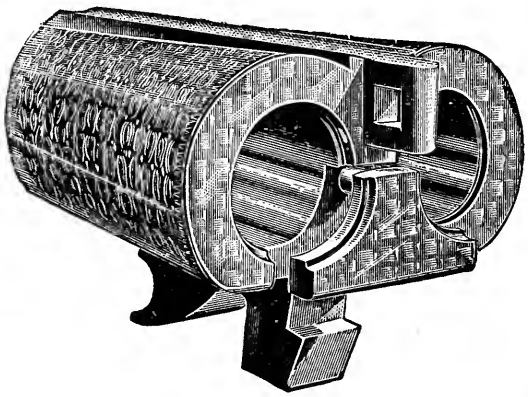

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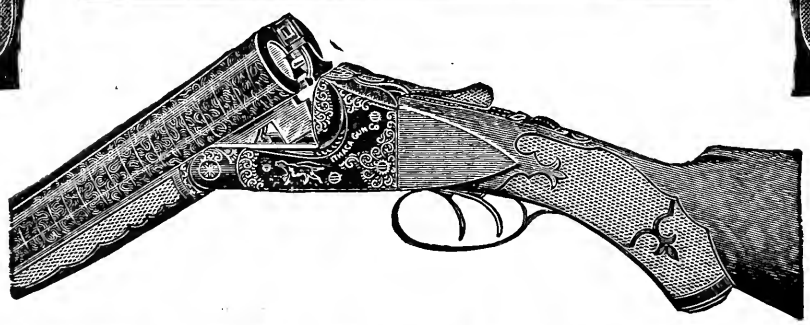

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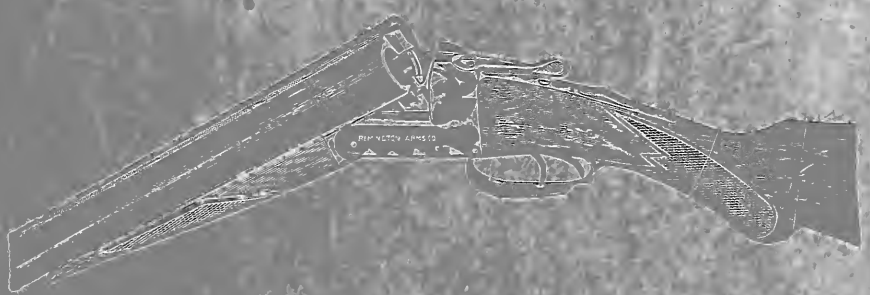

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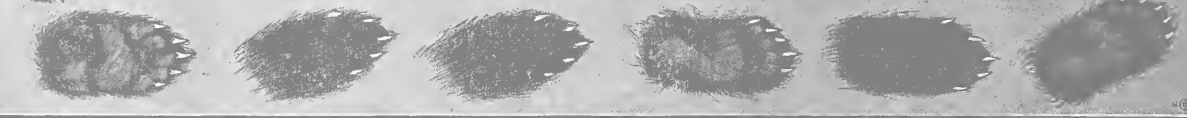

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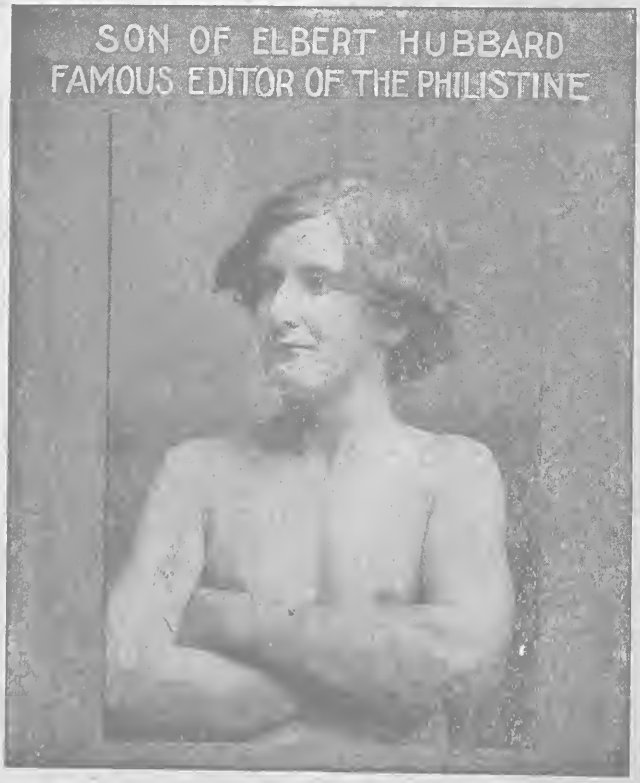

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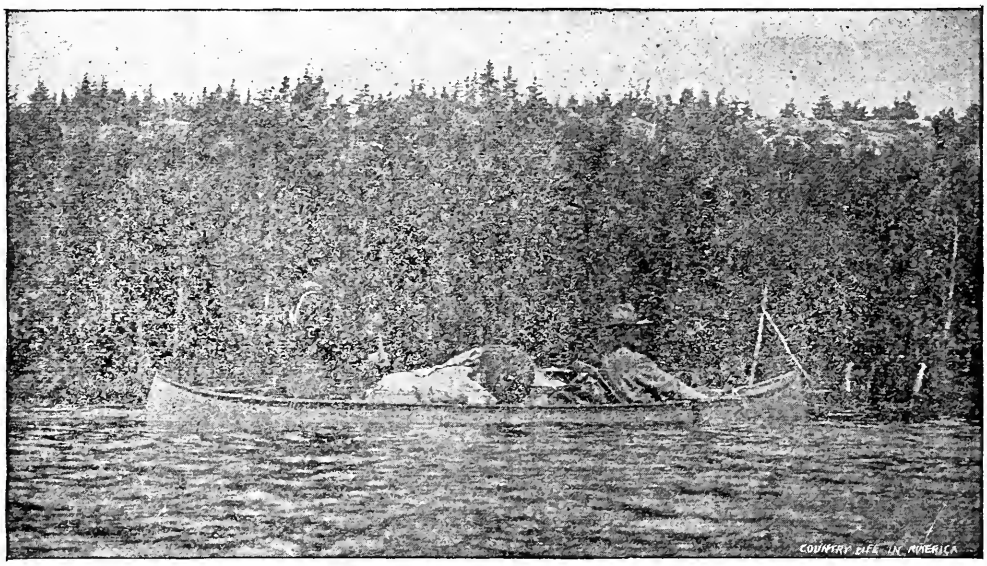

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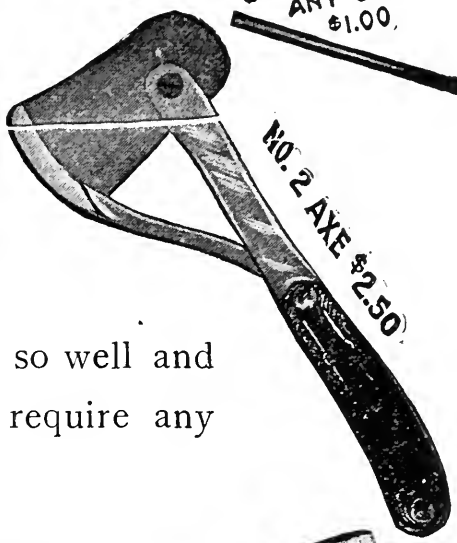

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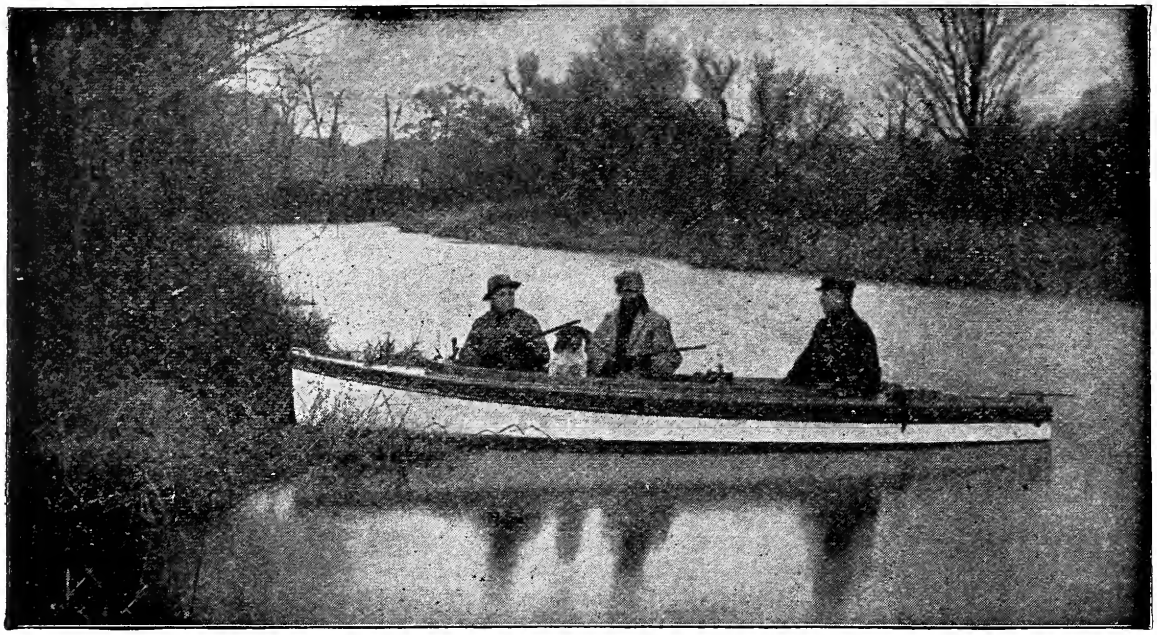

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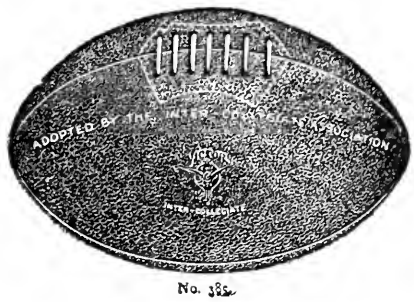

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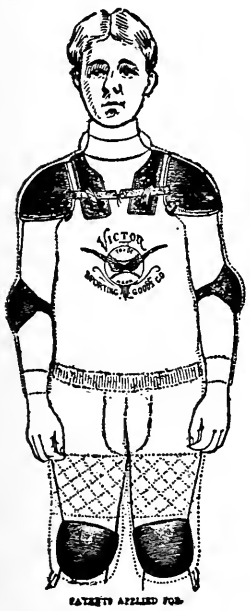

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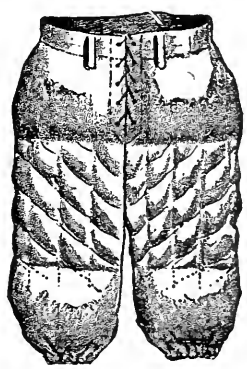
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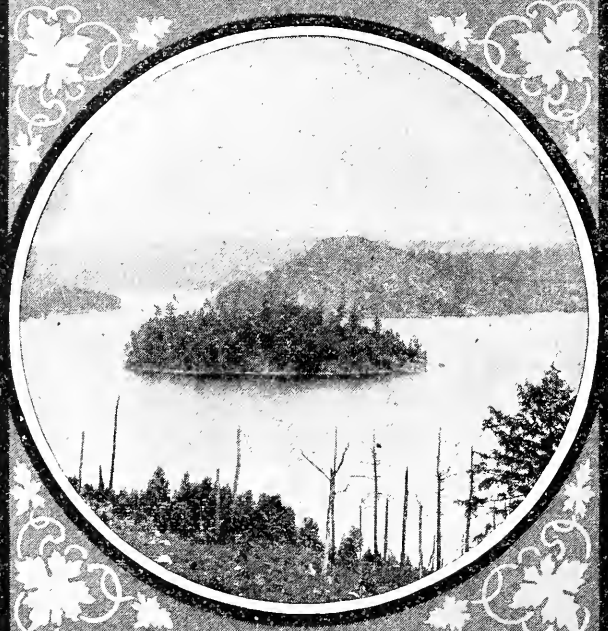

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John Sebastian, Passenger Traffic Manager,
Rock Island System, Chicago.

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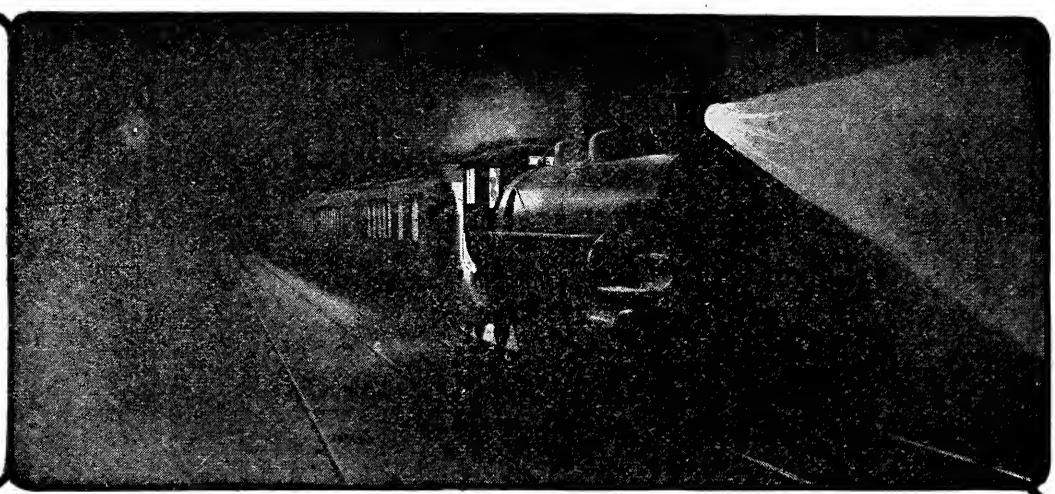
Travelers should use the Rock Island. Business men should locate in the towns along its lines. Farmers and stock raisers should buy land in the territory it traverses. Reasons why will be furnished on request.



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See page 255 of this magazine for article on Bermuda

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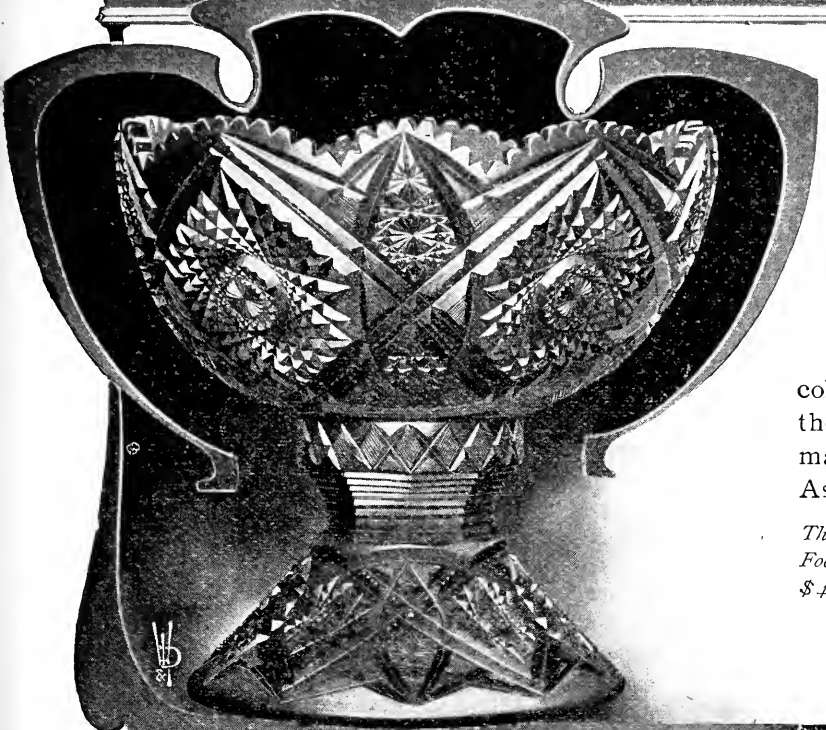

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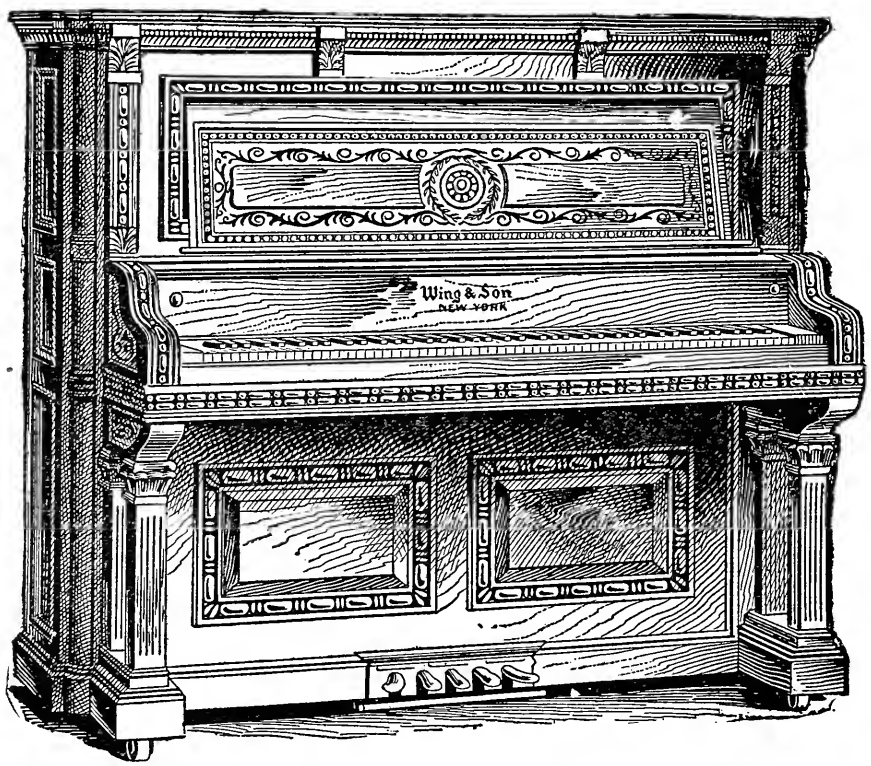

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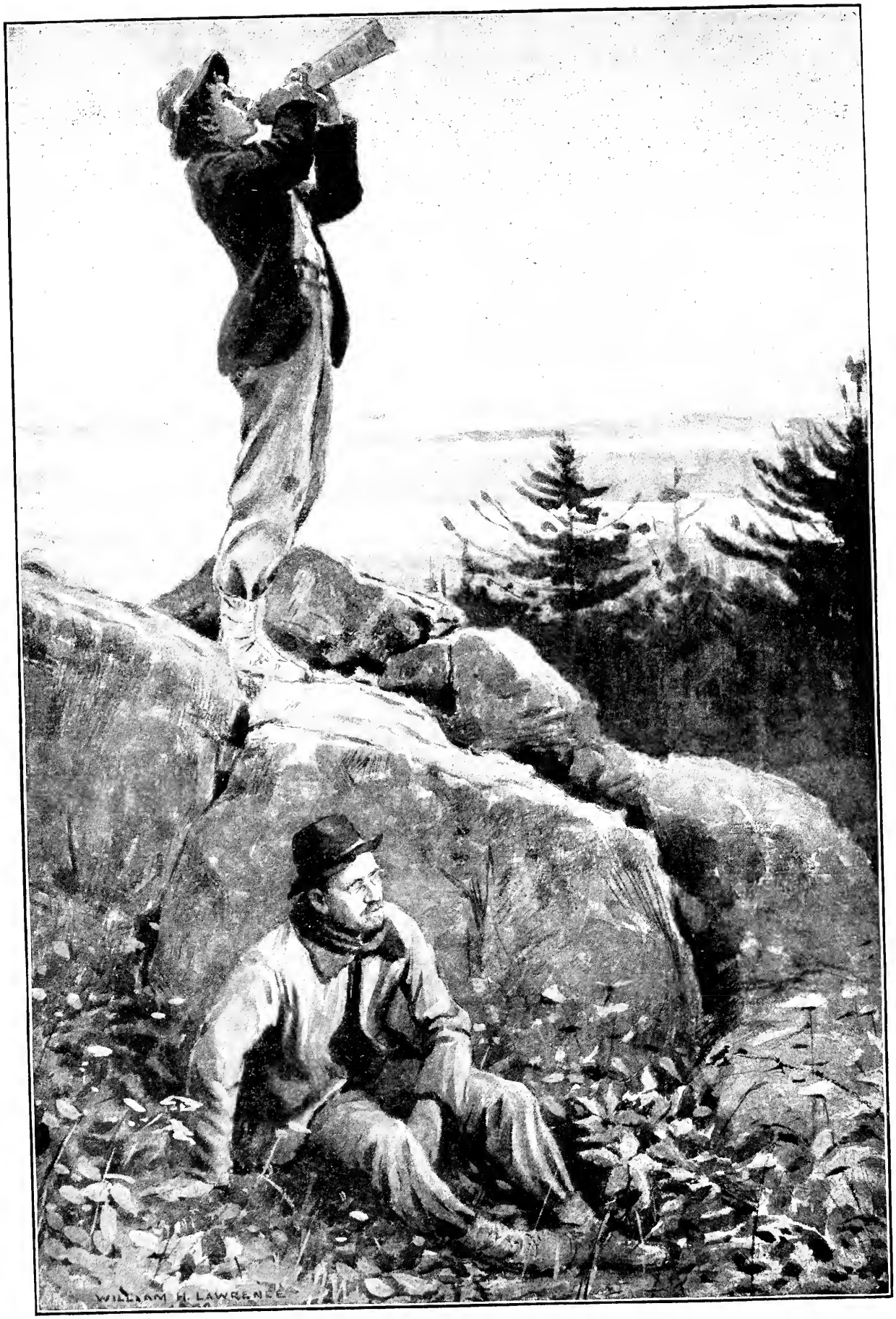


THE HORN WAS TILTED SKYWARD.

RECREATION

Volume XVII. OCTOBER, 1902. Number 4.

G. O. SHIELDS (COQUINA), Editor and Manager

BACK OF BARRIO AFTER MOOSE.

THE OBSERVER.

No country of an equal area, easily accessible to New England sportsmen, fulfills as does Nova Scotia the conditions necessary for successful moose hunting. Possibly the conditions savor too much of the parlor-hunt to suit some of our hardy Western friends; but a trip into good moose territory, 20 hours from Boston by boat, can be made strenuous enough to satisfy the majority of us.

Follow me a few days back of Barrio, in the Tusket region, and if a feeble pen does not defeat my purpose, I will give you glimpses of a pleasing country, game enough for fair minded sportsmen and certain incidents which befell our party in the autumn of 1901.

In the Tusket region no guide can pride himself on a reputation equal to that of Ned Sullivan. As tracker, caller and sure shot, he stands alone; while in knowledge of the country, great physical strength and the other natural gifts of a successful hunter and trapper, Fortune has been to him most kind. His was the commanding figure in our shabby quartette as we broke camp on Lake Barrio early one October morning and embarked in canoes for Toad lake and the adjoining country Northward. The other members of our party I shall designate as L., a business man of Boston, and B., his journalistic friend.

In Nova Scotia the chief function of the Provincial Game Society seems to be the acquisition of license fees. I wish I might truthfully record as great alacrity in enforcing game laws as in the collection of bills due, but I can not. Remarkably favored in its supply of big game, and in a country so easily patrolled, Nova Scotia has yet to do its full duty in properly conserving a glorious endowment. As a most valuable asset of the Province, as a duty to the world at large, there is every reason to give her noble game adequate protection. This has not been done.

As my first visit to the region was to be one of investigation, I decided not to invest to the extent of the $30 necessary for a non-resident's license to hunt the lordly moose. During the entire trip my only weapon of offense or defense was the camp axe.

Lake Barrio is one of the fairest sheets of water in the whole region, rather uneven in outline, dotted with a few islands and wooded to the shore. The surrounding ridges are covered with a fine hardwood growth of beech and maple, and as the sun rose on the morning of our start, a glory of autumnal tints lit up the more somber green of the omnipresent spruce. Our paddles soon carried us across 2 miles of shining water, and drawing the canoes well up on shore, we prepared to shoulder packs for the journey afoot.

The whole district has been extensively lumbered, and rude cart roads traversed the first stage of our journey, at all angles. While this fact made our trail easy at first, the frequent corduroys were found decidedly slippery after a 2 days' rain, and the mechanical swing so necessary for a

long jaunt was some time in coming. Occasional blowdowns varied the monotony of our march and tried the unused muscles in the upper half of the leg.

We had halted in a little clearing for the readjustment of packs, when Ned's warning gesture put us all on the alert. The wind, which was our chief enemy throughout the trip, had betrayed our presence to the sensitive nostrils of a cow and a bull moose, which had been feeding to leeward of the trail. In an instant they were gone. We spent an hour or more in trying to circle on the cunning animals, but it was of no use.

Once more we resumed our onward march, and mid-afternoon found us at a leanto which Ned designated as our stopping place for the night. It was the primitive makeshift of the hunter, a few poles leaning against a large boulder, with a birch bark roof and sides well laid on. Cosy and comfortable it looked to our appreciative eyes; and we made a good spruce bed to lie on, all hands turning to, removing the sodden wreck of a previous year, and bringing fresh browse, aromatic and wholesome to the senses.

The wind had died to almost nothing at 4 o'clock, when Ned announced that we "might as well give the thing a try, anyway." When he picked up the birch horn and began to give final directions, it was difficult to observe the slightest movement in the tree tops. The forest was hushed in absolute quiet.

Nature is sublime in silence. Her majesty is as impressive at such a time as in the throes of a tempest. Especially is this true in the wilderness, where one is alone with the might and grandeur of centuries. Changes are everywhere, but changes wrought in silence; silence most eloquent, pregnant of the infinite mystery of the woods!

Toad lake lay at the foot of the slope on which our camp was pitched, and some 400 yards beyond. It was but a drop between the hills, surrounded on all sides by a strip of open bog, several rods in width, to where the forest closed in. A point jutted out toward the center from the Southern shore and commanded either side. On this point L. and B. were told to station themselves, while Ned and I should conduct calling operations from a knoll above the camp.

The day was showing the first faint indications of its approaching end as we went to our respective stations. Ascending to the top of the ridge, Ned mounted to the summit of a huge boulder. I was content with a seat at the foot of the throne. The air was cool, the sky cloudless and a vivid blue. A faint shimmering through the trees beyond us marked the lake, the scene of possible carnage. We waited.

Finally Ned rose and, after a preliminary spit into the air, raised the horn to his lips. A few introductory grunts were followed by the 3 notes of the cow's call, given in masterly fashion. The horn was tilted skyward, and as it was slowly oscillated in a series of graceful curves, the tremulous and vibrant tones must have penetrated an immense distance through the silent forest. I can not do justice in any words at my command to the character of this performance. At the hands of a master, the impassioned sensuousness of this appeal to the bull, its different modulations, the circumstances under which it is heard, unite to render it an ever thrilling sound. Ned calls it the cow's "blart." It is the incarnation of brute passion.

After an interval of perhaps 5 minutes, the call was repeated. No answer.

Another interminable period of silence, followed by another effort from the guide. Soon he turned quickly toward me and whispered,

"Did you hear it?"

No; too far off yet for city ears. A moment later, however, it came to

me faintly, a sound not unlike distant wood chopping. The moose was probably 2 miles away.

A well judged space of listening and the horn was again resorted to. This time the bull's response was immediate and decisive. The quick, short bark, "ka-puk, ka-puk," thrilled us through and through, while the guide's face was a study in animation.

"He's coming along the ridge; coming fast," whispered Ned, "but he'll circle down to the lake before he heads for us and then the boys 'll have him."

Surely enough, the next word we had from his lordship showed his course had veered toward the lake. Minutes slowly passed and the first shadows of the coming dusk appeared, without an answer from our antlered friend, so recently in headlong haste to meet his supposed conquest. His characteristic caution had finally come to aid him. An armor of protective faculties was in use as he scouted through the undergrowth, silent, alert, suspicious. Then came the test of the caller's ability.

Ned descended from his position on the boulder and stood close by me on the ground. I noted stern determination in his face as he prepared for this crucial attempt. His rivals at the settlement were broadly commenting on the fact that Ned's last party out had failed to get its moose. This failure, though not his fault, and the attendant gossip, had annoyed him, and this time he meant business. The horn was pointed toward the ground, Ned almost crouched on his haunches and I could see by the play of muscles in his neck and cheek that the issuing tones, though less resonant than before, expressed the height of all his skill. It was evident the bull no longer doubted, for he replied at once with an impatient grunt and we heard a faint splash or 2 as he came toward us.

Ned carelessly tossed the horn on the ground and turning to me, his face lighted by a pardonable smile of triumph, said,

"That settles it! He's on the open bog, within 100 yards of 'em this minute. They'll shoot directly."

We listened with absolute confidence for several moments of intense excitement. This faith finally weakened as time passed and no rifle shot came to our waiting ears. I remember catching a spider, pendant from my hat brim, and viciously crushing him between my fingers as the conviction dawned on me that in some way the thing had miscarried. Ned's tense face was turned toward me in mute interrogation. What had happened?

Slowly Ned picked up the horn, discarded at what appeared the moment of success, for one last half-hearted attempt. At the same instant we heard a sharp "puk-a-puk" below us to the left, and the rattle of the bull's antlers against the trees. Ned flung the horn from him with an impatient gesture and ejaculated,

"Gone! By all that's holy! I knew that last bark meant trouble."

Wending our way back to camp, the guide set about preparing supper. We probably presented a rather forlorn and dejected picture to the other men as they joined us a little later. We certainly were in no joking mood. The outcome of this affair meant to Ned the approval or disapproval of his fellow guides in a world where men measure success by visible and tangible results; the recovery or loss of a prestige dear to him. Perhaps, in a less degree, failure might mean a blow at his very means of existence.

Ned didn't turn around as the others came blithely into camp; he was busy about the fire. Over his shoulder, however, he sent the cheery inquiry,

"Well, Mr. L., what was the matter?"

Mutual explanations followed. Our friends had heard no moose, seen no moose, could not believe there had been a moose near them. To be sure,

they had heard "a bear or something" splashing in the edge of the bog; had heard "a raven or something" croak rather loudly several times; and once had heard a limb snap. No, they didn't stand up in their place of concealment to investigate these noises. "They didn't seem important enough."

Ned coughed.

"Well, gentlemen, if you had investigated you would have seen an all-fired big moose mighty nigh you; and when you're moose hunting again don't pick a blind you can't see out of just because a moose can't see into it. We'll take a look around in the morning. Supper's ready."

After a fruitless attempt at calling in the early morning, we circled the lake under Ned's guidance and soon found the track of an enormous moose where he had left the ridge and headed for the lake. Step by step we followed the clearly defined course of the old patriarch, as he wound in and out among the trees in stealthy and cautious approach. Here he had rubbed himself against the rough bark of a spruce, leaving telltale hairs; there he had stopped to listen, with all 4 feet firmly planted in the soft moss. Without trouble we carried the trail out on the bog, even finding the broken limb, where he had stepped on a fallen spruce top. There he had paused again to listen, and there, perhaps, had come the last call which banished all his fears. Along the bog he must have made an impetuous rush, with a stride averaging 8 to 10 feet. Ned could not resist the remark, as he pointed to the splashes of mud thrown right and left,

"There's your 'bear,' gentlemen."

When we found where the moose had stood, in plain view, within 75 yards of our concealed friends, the mystery of his escape seemed inexplicable. We followed the tracks into the woods and the reason of his final and abrupt retreat was revealed. The huge footprints led straight to the trail of a party of hunters that had passed that way the day before. There he had wheeled and made off in a Northerly direction. It did not interest us to follow farther.

The mortification of our friends, as the tale graphically unfolded itself, was painful to witness, but Mr. L. lanced the whole matter when he said,

"I never looked for a moose to come out where he did."

It was clearer then. They had been the victims of a preconceived idea as to where they should see their moose. A preconceived idea of what a moose will or will not do is more dangerous to the success of a hunt than any other single factor. Indeed, it is almost fatal to it. A moose simply can not do what is expected of him.

We left camp that day and sought fresh grounds to the Southward; but Fortune, which had sent such a rare opportunity only to see it slighted, turned a deaf ear to all our prayers, and the rains descended on the end of a fruitless quest.

"Can she remember what happened on her 26th birthday?"

"Yes; she was just 18."—Yonkers Statesman.

THE HOME LOVE.

EMORY HAWES.

Give me a day on the Mexican line at a hundred and ten in the sun;
Give me a horse with a convex spine and a steer that can jump and run;
Give me a whiff of that prairie wind, it's a better tonic than wine;
Give me a man who I know has sinned if he hasn't learned how to whine.

Or a roaring night at Schultz's saloon, and a Briton's bellowing joke,
And French Pete's furious breakdown tune that screams thro' the frenzied smoke.
Give me the bullet-marked wreck of a room with its broken-paneled door;
Give me the stamping, thundering boom of booted feet on the floor!

Give me the jingle of seventy spurs and a lowering lantern's light;
Give me the hush that the .45 stirs, and the whirlwind ride thro' the night!
We'll forget the God that saves us, but the old life will claim its own,
And we'll feel that much-sung throbbing for the place that we call "Home."

Oh, the dull horizon's dun, and the blazing, brazen sun,
And the dust that warps the mind and chokes the soul;
And the cattle dead and dying, and a ruined ranchman crying,
And the whiskey-laden, whooping oaths that roll!

Oh, the blizzard—blinding, howling—and the famished coyotes snarling,
And the shadows from our slowly failing fire;
And the terror-tramping trail, and the pack mule in the gale—
Oh, the unmarked grave beside a springtime mire!

Give me one breath of the salt sea breeze, one night by an old Dutch hearth;
One lilt of the spring thro' the maple trees, one bound of my boyhood's heart;
One fearless clasp of a girlish hand, one run through the orchard's snow;
One glimpse of the life of my native land, one day from the long ago!

Give me the gloomy and grimy court; one case to win or lose!
One lucky stroke my chief to report, one rush for the latest news!
One swaying note from the orchestra, one face divinely fair!
One touch of the graces from afar, for the clear eyes smiling there!

AMATEUR PHOTO BY F. H. KUTNEWSKY.

A 20TH CENTURY DAWN.

It will be noted that while only half the sun's disk is above the hill the lower half appears to show through the rim. Can anyone explain this strange freak of the camera?

THE BIG TURTLE OF SAWMILL POND.

E. M. LEETE.

Bill Smith and I had been on the brook since sunrise fishing steadily. I carried a skeleton rifle, strapped on my back, for a chance woodchuck, but none showed itself, and we devoted all our time to the trout. Now we wormed our way through the damp bushes to drop a line in some favorite spot; now stood on a rock at the foot of a rapid and floated our bait into the pool below; again, waist deep in the brook at the head of some deep hole, we dropped a squirming worm into the quiet water beyond.

Fair luck we were having, too. Out of Otter hole we had taken 7 handsome fish, the Turtle hole had yielded 6, while 5 more had left their home in the green meadow and joined their fellows in our basket. The brook that we were fishing wound down through the woods and meadows, and was finally stopped in its course by a dam which, though sadly out of repair, made a pond of perhaps 5 acres; the Old Sawmill pond, it was called. It was grown up with bushes and lily pads, leaving a streak of clear water through the center. We had fished at the head of the pond, and now, tired and wet, were sitting on a log near the dam, idly throwing our lines into the open water. My companion lived not far from this place, while my home was in the village 7 miles below. Bill knew every crook and corner of the brook from one end to the other, and apparently had a personal acquaintance with every fish in it. He knew where the big ones lurked and where only small fry could be caught. He knew when and what they would bite.

As we sat there on the log, Bill said:

"Do you know the largest turtle I ever saw lives in this pond? He has lived here 10 years to my knowledge. I see him almost every summer and last summer I saw him twice."

"How big is he?"

"Oh, he is as large as the head of a sugar barrel, and I should say he would weigh 100 pounds. I want him bad, but never could get him. A pair of wood ducks nest here, too, and in the fall I bring home some black ducks and teal from here and up along the brook. What ails the trout, my bait has not been touched for an hour? I will try on the other side."

With that Bill took his rod and disappeared through the bushes.

Now, my non-fishing friends, do not think for a moment that "it is all of fishing to fish," nor, as I have heard it put, that fishing is "a string with a worm at one end and a fool at the other." As I sat there on the log, in the sunshine, while the vapor steamed from my damp clothes, it was good to be alive. It was good to have ears to hear the bobolink in the alder bush just back of me, and eyes to see the wonderful picture just in front. The bushes fringing the pond were taking on their summer garb, the trees of the woodland beyond were dressed in brightest green, while overhead in the deep blue of the sky, a circling hawk put life into the picture. The sun was hot on my back, and poured down on the still water, making the bottom plainly visible for some distance out until it changed into the blackness of the deep water beyond.

But what is that? A human hand? No, but the likeness was striking, as out of the black water there rose a ghostly gray shape, with a savage head, and feet that in the dimness looked like a man's hands. Up it rose until its shape was plainly visible. Then it dawned on me, that the big turtle Bill had spoken of was before me. He was fully as large as my friend said, with some to spare. As he floated lazily to the surface I laid down my rod, picked up the rifle and waited. Slowly the great reptile moved until his back and head showed above the surface. When he thrust his head up and opened his mouth the rifle came to my cheek, and, glancing along the clean brown tube until the ivory front sight was fair against his livid throat, I pressed the trigger. Through some happy chance, the ball either entered the brain or cut the spinal cord. The victim died with scarce a struggle. A shout, and Bill was with me. Together we tried with sticks to get the immense thing to shore but without success.

"Well," remarked Bill, "I am half wet through now, and I want that turtle bad, so here goes"; and in he went and brought it to land.

It came fully up to his description and it was all we could do to lift it into the wagon.

Fond Mother—Willie, you should have known better than to fight that Smith boy.

Willie—I know, mamma, but I thought I cud lick him.—Ohio State Journal.

THE VEXED BERMOOTHES.

JUDGE WARREN W. FOSTER.

JUDGE WARREN W. FOSTER.

About 700 miles Southeast of New York, out in mid-ocean, lie the Bermuda islands. Though in winter every ship to the Bermudas is loaded with tourists, the islands themselves are strangely unfamiliar to most Americans. They are of coral formation, surrounded by a coral reef, through which a single navigable channel opens. Inside the reef the waters are peaceful and beautiful beyond description. More salt and more buoyant than the waters of the North, they are vastly more translucent. On a still day the bottom can easily be seen and exactly studied at depths of 15 to 30 feet. This surpassing clarity of the water makes a trip to the reefs most interesting. Beautiful corals and sea fans yield readily to the grappling irons with which every boat is provided. Exquisite sea mosses and wonderfully curious vegetation abound. Now and again sea monsters and sea midgets dart hither and thither. Every look is rewarded with a new and wonderful vision, and fishing for coral is as interesting as fishing for fish.

A thin but fairly rich, red soil covers the coral formation of the islands, yet it requires the constant and regular application of fertilizers to grow profitable crops. Formerly lemons, limes and oranges were plentifully grown, but a blight came upon them and now few such trees remain. Bananas grow readily, a small yellow variety, exceedingly delicious, yet not enough for the home market. Potatoes and onions are the staple crops. The farms are all small; mere patches tilled by hand.

Roses, hibisci, oleanders and other beautiful flowering plants and shrubs are in luxuriant and fragrant blossom the year round. The Bermuda, or Easter, lily is deservedly famous. It was first exploited by General Hastings, whose beautiful home, "Fairyland," is one of the show places of the islands. It is situated on an arm of the sea, so sheltered that its waters always reflect, mirror-like, the marvelous interlacing of its fringing mangroves.

The red cedar is the principal native wood and the hills and ravines are covered with its beautiful evergreen. Palms of all varieties grow luxuriantly in the open air,

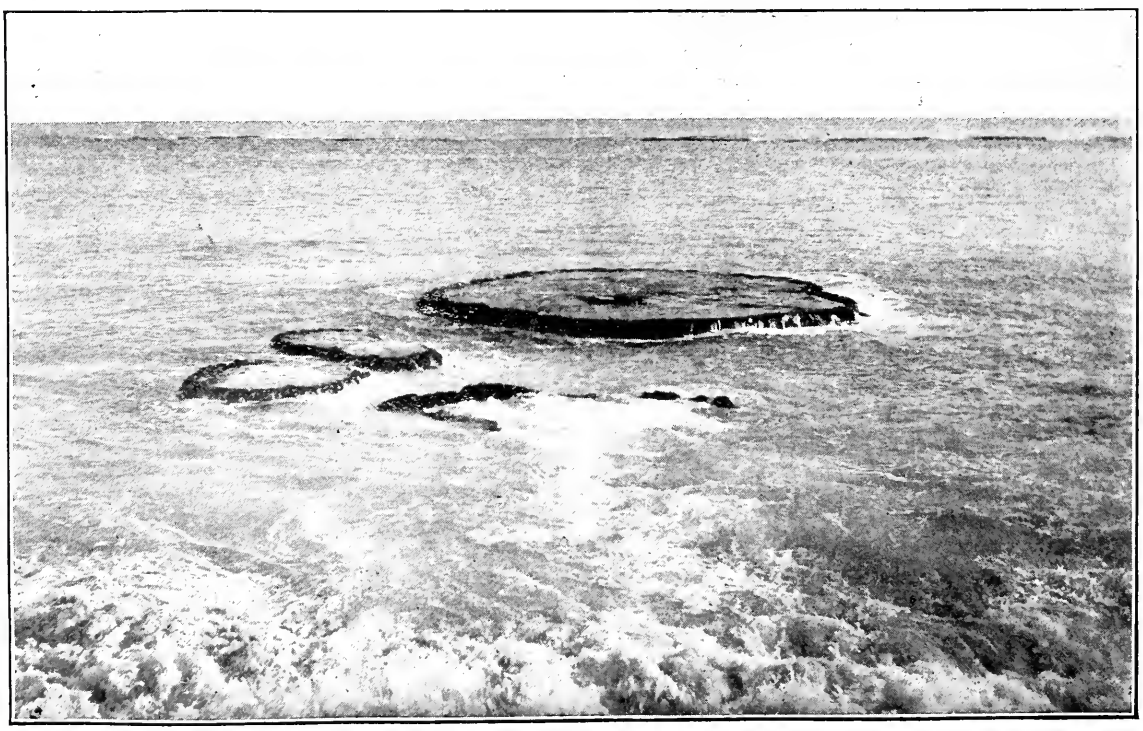
BIRD'S EYE VIEW OF THE BERMUDAS.

OLEANDERS IN BLOOM.

from the stately royal palms in the mayor's beautiful garden, down to the chaste and dainty sago palm, with its crimson, waxy fruit.

At this time Bermuda is best known in the States as an encampment of the Boer prisoners of war. Darrel's island was the chief encampment. It is surrounded on all sides by deep water. One end was set aside for the prisoners, the other end for the Warwickshire regiment, which was assigned to the duty of guarding the prisoners.

Many were the attempts to escape. One prisoner succeeded in reaching New York, and this but served to increase the vigilance of the guards. Another, attempting to swim past the dead line, was shot in the nose. A third took a small wooden box, bored holes in it for ventilation, covered his head with it and attempted to swim away by night. The sweeping searchlight of a man-of-war showed but a box floating on the water, yet it seemed passing strange to the guard that an empty box should float to windward. A boat was lowered to investi-



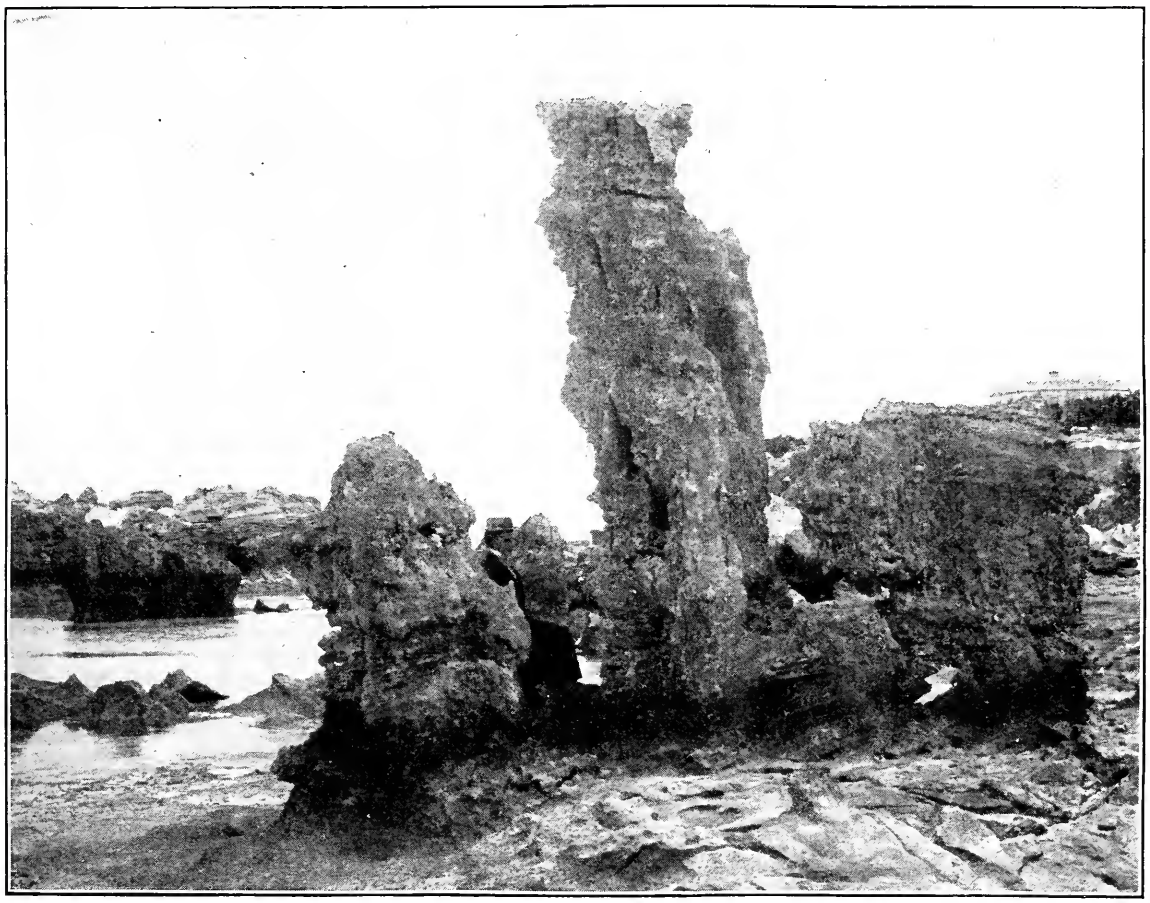
BOILING ROCKS ON THE SOUTH COAST.

gate and the mystery was explained by the capture of the escaping Boer.

For recreation the Bermudas are ideal. The temperature in summer rarely exceeds 90 degrees and is tempered by the moist ocean breezes. In winter the thermometer averages about 70 degrees, so that life out of doors is both possible and delightful. There are golf links, tennis grounds and cricket fields; roads, made by scraping the soil from the coral rock, as hard and smooth as asphalt; with many objects of interest to give a purpose and delight to a drive, ride or walk. These roads are an object lesson to the visitor from the States. The Government has expended large sums for their construction and maintenance, cutting through hills of rock, in many instances, to reduce the grades. There are no railroads or trolley lines on the islands, the carriages are good and the bicycle is a universal means of travel. Yachting within the smooth waters of the bay and sound, or in the rougher waters beyond, may be enjoyed in its perfection. The rig of the Bermuda yacht is peculiar. A long bowsprit carries a large, almost balloon jib. In racing a still longer jib boom carries a jib topsail. The mast is a pole mast, very tall and raking away aft. The mainsail is jib headed or leg-of-mutton, with its foot stretched on a boom, though sometimes on a sprit. The body of their yachts is of deep draught, and heavily ballasted. They stand any kind of weather, work handily and sail fast.

Rowing appears not to be a favorite amusement, for the rowboats are heavy and clumsy, but well adapted for rough weather.

Fishing is good, but better in summer than in winter. It is said by the natives that the fish South of the Gulf stream are different in kind from those North of it.



ARM CHAIR ROCK ON NORTH COAST.

In summer great rock fish, redsnappers and groupers, weighing 20 to 50 pounds, are caught off the reefs. In winter hogfish, bream, sailors' choice, porgies and amber fish are principally caught. The porgy is esteemed the game fish. In shape it is like the scuppogue, which is the "scup" of Martha's Vineyard, and the "porgy" of Long Island. In weight the Bermuda porgy far exceeds the scuppogue, running 8 to 15 pounds. Porgies are caught in about 20 feet of water, over the patches of coral rock, with a bait of mussels or squid. Sea eggs are frequently broken and thrown in the water about the boat to attract the fish; chumming, we call it at Sandy Hook

KHYBER PASS.

and Fire island. These sea eggs detract from the pleasure of bathing in Bermuda waters. They look much like a chestnut burr, but the spines are of shell. When stepped on they enter the flesh and break off and a surgical operation is necessary to remove them.

Many of the Bermuda fishes are of marvelous beauty. *Facile princeps* is the angel fish, with its blue, violet or lavender body and long, graceful fins, flashing at times all the hues of the rainbow. When caught its beauty quickly fades. It is about a foot long and is esteemed a most delicious pan fish.

There are also the parrot fish, marked with all the gaudy colors of the red parrot; the fiery red squirrel fish; and the schoolmaster, so named because its chief characteristic is its stripes, loud and gaudy. The amber fish furnish the best sport. They are also known as "floating fish," because they swim near the surface. They appear in many respects much like our bluefish, though they are caught still fishing, with the squid bait. They range from 7 to 10 pounds in weight. They bite voraciously and large catches are easily made.

One of the unique sights of Bermuda is the "Devil's Hole," a small pond having an underground connection with the sea some hundreds of feet distant, and stocked with fishes. Last summer 1,500 groupers, rock fish and redsnappers were put in it. These are deep water fish and the swelling of their air bladder, when brought to the surface, would kill them were it not punctured. It is punctured and they then live and thrive near the surface. The fish are accustomed to visitors, and when one appears they thrust their heads out of water begging for bread. Voracious monsters they are, with red and horrid jaws. The story is told of a luckless dog jumping in among them, when his master threw in some bread, and being dragged beneath the surface never to be seen again.

Fishing in the Bermudas is done altogether with hand lines, and the quality of the sport is judged by the quantity of the catch. The amber fish would, however, give rare sport for the rod and reel.

Bermuda lobsters differ from those of the North in that they have no claws. They grow to a large size and are esteemed a great delicacy. The Bermuda oyster tastes like the hard clam of the North, though its shell resembles that of the young oyster except that it is thinner and of a greater pearly luster. Bermuda scallops are larger than those of the North and the shell is less corrugated. The body and the eye are both eaten. They taste quite like the scallop of the waters about New York.

The hunter who visits the Bermudas, should leave his gun at home; he will find no use for it. Song birds abound, but few, if any game birds or water fowl, as far as I could learn, exist there. Snakes are as scarce as the good Saint Patrick said they were in Ireland. The Bermudas are a naval and coaling station of Great Britain. In winter they are the headquarters of the British North Atlantic Squadron; while one or 2 British regiments are always stationed there. This gives a social life to the islands that visitors find most attractive. The gay uniforms of the soldiers, officers and marines contribute hugely to the brilliancy of the aspect.

From New York the Bermudas are easily reached by the well appointed steamers of the Quebec Steamship Company, which, in the season, maintains a 5-day service. The passage takes 2 to 3 days. Recently the Bermudas have become famous as a summer resort, as the temperature, even in mid-summer, is made agreeable by the cooling ocean breezes.

Bermuda houses, almost invariably, are built of coral rock. Scrape off the soil anywhere and then, with chisel and saw, cut out and fashion as you will the material before you. "It cuts like cheese, but lasts like iron for things like these," for it quickly hardens on exposure to the air. Great square blocks form the foundation and walls; while slabs, sawed as thin as slate, are used for the slanting roofs.

The visitor to the Bermudas is far from the madding throng, his mail comes only once in 5 days, cable rates are almost prohibitive, and the newspapers when 5 days old cease to interest. The rest and quiet, therefore, are perfect.

Teacher—What is that you have drawn on your slate, Tommy?

Tommy (aged six)—A woman and a house.

Teacher—But I see only the house. Where is the woman?

Tommy—Oh, she has gone into the house.

—Rochester Herald.

WHEN FATHER HANGS A PICTURE.

CHARLES N. DOUGLAS.

When Father hangs a picture on the wall there's lots of fun,
An' ev'ryone aroun' the house has got to move an' run.
The ol' step ladder's fixed in place, the hammer's nowhere's roun',
An' when they start to look for nails, the nails ain't to be foun'.
Pa shouts aloud his orders, an' Ma says 'twas ever thus,
When a man starts in to do some work there's bound to be a fuss.
An' Pa says women's useless things an' always have to call
A man if they should want to hang a picture on the wall.

Pa gets a roll of picture wire, an' then a measurin' tape,
An' says he'll show the women how to put the house in shape.
Off to the parlor then he goes and partly there disrobes
And bangs the ladder right against the shandyleer and globes,
Then shouts for Ma, an' gives her fits because she didn't fly
To warn him when the ladder to the shandyleer was nigh.
Then Baby 'mongst the broken glass unnoticed starts to crawl.
Oh! there's heaps of fun when Father hangs a picture on the wall.

They bandage up the Baby, an' they sweep up all the glass,
An' Pa says, at hangin' pictures, nobody's in his class.
There's artists in most every line, Pa 'lows, but you can bet
That for real artistic hanging, no one's equalled him as yet.
Then he holds a nail between his teeth, and Ma remarks she's glad,
As now at least his tongue is stopped, an' that just makes Pa mad,
An' down he lays the law to Ma, who goes out in the hall,
An' leaves Pa in his glory hangin' pictures on the wall.

Pa measures up the wall an' squints and then starts in to back
So as to get a better view, and gives his head a crack;
An' oh! the things that poor Pa said, I'm glad no one was near
When his bald head bumped up against that parlor shandyleer.
Then up the ol' step ladder, nail in mouth, he starts to climb
An' says he 'lows that picture's just as good as fixed this time,
Then hits that nail a mighty whack, an "murder!" starts to bawl,
For it's not the picture, but Pa's thumb's got nailed against the wall.

The damaged thumb is bandaged up, the head is plastered, then
Up that old ladder, "do or die," once more Pa sails agen;
An' then he goes for that ol' nail, an' hits it such a swipe
An' not only drives it through the wall, but through an' ol' gas pipe,
An' just as we all smell the gas, the ladder gives a crack
An' crash it goes an' sends poor Pa a-sprawlin' on his back.
His ankle sprained, for Doctor Jones we send a hurry call
To tell him Pa is sick with "picturitis on the wall."
It beats a circus when Pa hangs a picture on the wall.

The Baby's cut with broken glass, an', as for poor ol' dad,
He's sprained a foot, an' lost a thumb, his head's cut awful bad.
The shandyleer is wrecked for life, the gas it's made Ma ill,
An' 'twill take Pa's savings for a year to pay the plumber's bill.
The parlor looks as if a cyclone slept in it a week,
Or a band of Texas steers had been there playin' hide and seek;
An' ever since that day, Dad, he's been singin' mighty small,
An' Ma, not Pa, henceforth will hang the pictures on our wall.

It is easier to rob a million men of a dollar each, than to rob one man of a million.—Exchange.

OUR TRIP TO SEBOOIS.

W. T. CRITCHLEY.

The autumn leaves were beginning to take on beautiful colors. I met an old friend. We talked it over. Decided it would be a good thing to get in the woods. Agreed to start about November 1. Thought the time would never come. Finally it did.

November 3d we took the evening train out of Boston. Were bound for Patten, but the train was in no hurry. Stopped at every back door. Had to change cars at Patten junction. Got off station before, by mistake. Made us mad.

Hunted round for team to take us on. Found one.

Driver soaked us $2 apiece.

Madder still.

Found team waiting to take us to Seboois camp. Had intended going to Trout brook.

Thought it good scheme to stay at Seboois.

Found out it was.

Got on about 6 miles.

Misunderstanding with driver about taking us way in.

Other fellows on board were going off another road to Wrenn's camps.

Driver tried to drop them at junction of 2 roads.

They got pretty mad.

Had a little squabble.

All mad then.

Finally saw team coming.

Asked driver to take us in to Shinn ponds.

Said, "all right."

Went about a mile.

Axle bolt broke.

Let us down in mud.

Front wheels and horse kept on going.

Devil of a fix.

Thought it good scheme to get the horse back.

Was.

Had some rope; tied wagon together; gave driver dollar.

Made him happy.

Got on after a while.

All happy then.

Stayed at Shinn ponds all night.

Struck out on foot next morning for Seboois camp.

Roads awful.

Saw deer going in.

Pretty hungry when we landed.

Had good dinner, though.

Pumpkin pie, prime.

Late when we turned in.

Out early next morning.

Pretty chilly.

No snow, though.

Was going through some dead timber.

Saw deer going like the devil.

Didn't fire.

Would rather miss than wound.

Next 3 days didn't have any luck.

Woods noisy.

Froze a little.

Leaves cracked like glass.

Didn't like that.

Saw 2 more deer.

Two white flags, rather.

Next 2 days same luck.

Morning after started over in woods back of camp.

Could see Mt. Katahdin covered with snow.

Beautiful.

Got into woods.

Was going through some black growth.

Heard little crackle.

Heart jumped.

Saw a doe.

Waited.

Didn't want her.

She skipped.

Began raining.

Glad of it.

Made leaves soft.

Was looking under trees.

Saw something move.

Stopped breathing.

Saw 2 bucks.

Watched them a minute.

Fired.

Right through shoulders.

Guess bullet is going yet.

Other buck didn't move.

Foolish buck.

Fired again.

Both mine.

Didn't take long to dress them.

Both killed quick.

Didn't go 10 yards.

30-30 Winchester.

Good gun.

Also good bucks.

Weighed 165 and 140.

Shooting all done then.

Waited to see what luck friend would have.

He got a doe.

Thought we would break camp next day.

Met a fellow from Bangor.

Had shot 2 does.

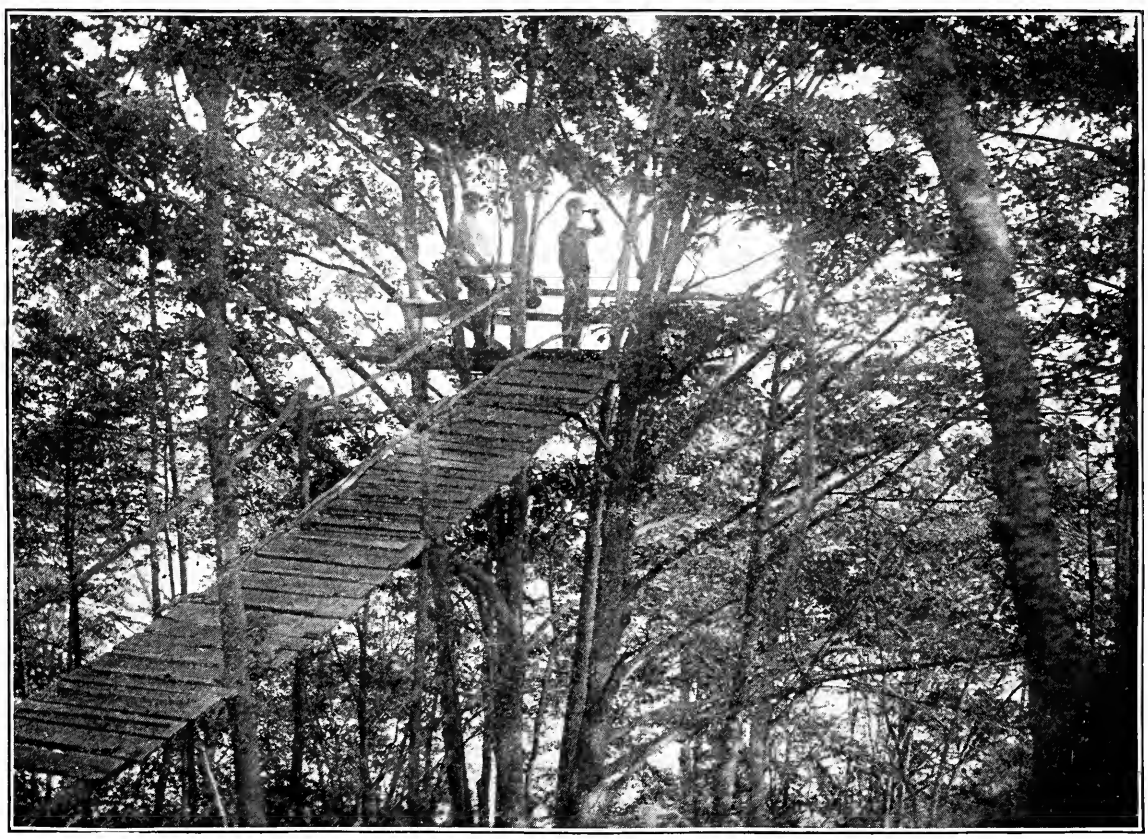
Next day killed another.

Wasn't satisfied, wanted bucks.

Said he was going in to Trout brook after them and moose.

Asked him if he had heard of Shields.
Said, "No."
Wanted to know who he was.
Told him.
Got him interested.
Thought he would like to meet Shields.
Advised him to wear copper bottomed trousers when he called.
Didn't seem to understand.
Wouldn't be afraid to bet he killed a dozen does before he came out, if he saw them.
Heard good things about game laws and game.

Fellow fined $100 for shooting cow moose in Patten.
Land owners don't want any shooting in September.
Too many fires.
Think it good idea, too.
Season too long anyway.
Little boy at farm had counted 112 deer at spring in front of camp, since summer.
Guides say caribou are numerous around Mt. Chase.
Birds not plentiful.
Saw only 3.
Guess they are alive yet.
Going back to see, next year.



AMATEUR PHOTO BY R. L. SCHLICK

THE LOOKOUT AT HAMLIN LAKE, MICH.
Made with Premo Camera and Bausch & Lomb Lens.

"Well," asked the caller, "have you cleaned everything up since the Fourth?"
"Almost," said the mother of a large family of boys, putting her apron to her eye. "There's one of Dickey's fingers we haven't found yet."—Chicago Tribune.

MY MOOSE HUNT IN 1901.

W. G. REED.

I arrived in Perth, September 12. Alec was waiting for me with his team, and we were soon on the road to his house for the first night. After supper I unpacked my duffle and we made preparations for an early start in the morning. Alec picked up my rifle, looked it over and said:

"I see you still stick to the 30-30."

"Yes, it is good enough for me," I replied.

"I was in hopes you would bring a more powerful gun this year."

"What's the matter with that?" said I. "You know what it did for me 2 years ago —one caribou that never took a step after being hit, and one moose that went but 10 yards; each struck but once. What more do you ask?"

"Yes, I know," said Alec; "you got the bullets each in the right place."

"That is just the point," I returned. "I can put more bullets in the right place with the 30-30 than I can with a gun that kicks. All large bore, heavy bullet guns have an unpleasant recoil. To put the bullet in the right place is necessary with any rifle."

"I don't agree with you. I want a gun that will paralyze if it hits at all."

"That gun is not made, of sufficient light weight for a man to carry."

"Oh, yes it is," cried Alec. "There (picking up a Martini-Henry) is the rifle. If I touch a moose anywhere it's mine."

"Oh, rats!" I exclaimed, "You can not paralyze an animal unless you hit some nerve center; the brain, vertebræ, kidneys, or ham string; and a 30-30 will do that. For a paunch shot the 45 or 50 caliber would, doubtless, be better; but give me the weapon with which I can put the most bullets in places that will cause death quickly."

When a man receives a gunshot wound, he realizes the situation, he gives up, and in many cases would welcome another bullet that would put an end to pain. An animal, however, merely feels, instinctively, that danger threatens and he puts forth all his energy to get away. If mortally wounded, he will go until his natural forces are spent. If not mortally, he will get away and the wound will heal.

Friday morning, September 20, 2 bulls came out in answer to a call. I decided that neither had antlers large enough for me. Alec insisted on my shooting at the biggest, as I might not get a chance at anything better. I reluctantly complied, cutting off a lock of hair, but not doing other injury, and they both disappeared.

"Oh, hang that 30-30," said Alec. "It is no good."

"Now, don't blame the rifle," I replied. "The fault was mine. I am glad now I fired, and glad I missed, because I am sure he was not what I came for. Glad I fired, because I was too confident that I would hit and so was careless in aiming. Now show me a moose with antlers that I want, and I'll take them home."

Three other bulls were seen in the next few days, but under such circumstances that shooting was impossible. My contract with Alec required that on Wednesday, October 2, I should return to the depot camp at Trousers lake; my successor was due to arrive there that day and he would claim Alec. Tuesday, October 1, still no game, and it looked as if I should have to go home with nothing. We had had unpropitious weather, high winds with a great deal of rain. So far, only 2 calling days.

On the last afternoon the wind died away, and we started out. Calling brought no answers, and reluctantly we turned the canoe toward camp. We were near the landing, about 5 o'clock, when Alec suggested that as we still had half an hour of daylight, we try the lower end of the lake. About 5.15 we stopped and he called. A few moments of suspense, and a distant "Whoof" came to our ears.

"By Jove! there's an answer. We must get around on the other side of this island."

Paddling rapidly we were soon in a good position, and another coaxing invitation was sounded. At 5.25 an enormous bull appeared on the shore, exhibiting only head and fore-quarters. I fired 5 shots before he disappeared and we were confident he was wounded.

In addition to his ability as a caller Alec has a hunting instinct. Instead of landing where the bull was last seen, he paddled farther down the lake, then pushed in at an angle so as to cross any trail. Within 5 minutes he found the animal dead. He could not see the canoe, but calling to me to keep on shouting, with his knife he blazed his way out. In the last 15 minutes of my last hunting day the bull was called out, shot and found. It was then nearly dark and we returned to camp for supper. Then, with lanterns, we went back to dress the game. Alec wished to save the hide for moccasins; so after removing the head and feet, all I wanted, he began to skin. Soon his knife struck a hard substance.

"How did either of your bullets reach this place?" he asked. One had struck high, back of the shoulder, ranging backward; one had struck on the other side, low down, back of the shoulder, ranging forward toward the heart.

Carefully uncovering, he found a large bullet held in a sack that had grown about it, and there were no traces of a recent wound in its vicinity.

We reached the depot camp about noon Thursday. David, with his October party, arrived soon after. He was shown our find, and he pronounced it a Martini-Henry bullet that he had fired at a moose 2 or 3 years before. He claimed, also, that in its flight it had collided with a small tree, which explained an abrasion on one side.

"There," said Alec, "I knew there must be some good reason why that bullet did no more damage. You couldn't expect it to go through a tree and do what it would if there had been no obstacle. I don't believe the 30-30 would have done nearly so well, under same circumstances; but the tree was not to blame. The fault was behind the rifle."

On the whole, I had a most enjoyable trip; plenty of fatigue, wet, cold, and other discomforts, with 14 days 9¾ hours of disappointment. Then 15 minutes of rising hope and exultation at success; enough for a year, and to cause me to forget all that was unpleasant.

What is the best time for moose hunting, and where?

If a man would merely like to shoot a moose, if expenses must be kept down, and if comfortable living is necessary, let him go to Maine and take chances. About one hunter in 50 gets a moose. The old, big antlered heads are scarce, though, unless one penetrates far North, 2 or 3 days' journey from the railroads. The season is short, October 15 to December 1.

A trip to Maine, including 15 days' sojourn at an accessible camp, would cost anywhere from $100 to $150. If in 10 such trips the hunter got one set of antlers worth mounting he would be doing better than the average. If he penetrates the Northern wilderness he will need more time and his expenses will be greater. As he can only engage in still hunting he will not greatly improve his chances. There are plenty of moose in Maine; cows, calves and young bulls. Old bulls with big antlers are scarce.

If one must have a moose, New Brunswick offers much better chances. The open time begins September 15 and does not close until January 1. The hunter has a choice of calling, still hunting or tracking on snow. In the rutting season, with a competent guide and fair weather, one is certain of one or more chances for shots. In the still hunting season, conditions are about the same as in Maine, except there is more game. The tracking season, beginning with first snow, offers chances all its own. With a competent guide and skilful hunter you need not come home with anything less than a 50-inch set. If you want caribou, they are there.

A trip to New Brunswick, 2 to 3 weeks in the woods, will cost $150 to $300. If you are a good shot, you will not need to make a second trip. The heads brought out in September and October average smaller than those killed after the snow flies. The reason is, that in the rutting season, the young bulls rush out on hearing a call and expose themselves much more freely than do the old ones. After snow flies, the good guide will carefully select a large bull's track, and run him down, disregarding the small bulls, cows and calves.

In the season of 1900 my guide and his brother handled 9 sportsmen. They brought out 8 good moose heads, running 35 to 58 inches spread. The ninth sportsman had 4 chances, but declined all, as neither would beat the one he had obtained in a previous year. Five caribou were also shot, and no man came home empty-handed.

Do not think it is only necessary to go to New Brunswick to get a moose. A competent guide is essential, and they are as scarce there as good heads in Maine. Do not contract with one who is not well recommended. There are 4 requisites to getting moose, even in New Brunswick; endurance, a cool head, skill with the rifle, and a good guide.

If anyone wishes to go on a moose or caribou hunt where such game is plentiful, and wishes a guide who knows the country, how to take care of his patron, and who is reasonably sure of showing him his heart's desire inside of 2 weeks' stay in the woods, let him correspond with Alec Ogilvy, Jr., South Tilley, Victoria county, New Brunswick.

"Bah Jove! All the girls around here smile at me."

"Well, that shows they have some manners. Anywhere else they would laugh outright."—Chicago Daily News.

MOUNTAIN QUAIL SHOOTING IN LOWER CALIFORNIA.

CHARLES B. NORDHOFF.

The mountain quail is, in my opinion, the best game bird of the West. The valley quails are considerably smaller and afford much easier shooting. Nowhere else have I seen mountain quails so plentiful as in lower California. Our party, consisting of Dr. B., my father and me, were encamped on top of the corona, which is basin shaped, the sides all sloping to the center, down which runs a stream.

The first evening in camp we saw a large covey of mountain quails flying across the canyon to roost. Next morning we were awakened by the whistle of hundreds of them. Seeing the impossibility of getting further sleep, Doctor and I dressed and sallied forth.

Each took a side of the canyon; Dr. B. the right, I the left. The basin was about 500 yards in width. The whole bottom was covered with giant pines, between the trunks of which was grass waist deep. The right side of the canyon was covered with loose heaps of boulders; on the other were thick brush and dwarf piñons.

I had been walking about 15 minutes when I heard shots from the doctor's direction. Looking up I saw 5 quails pitch about 50 yards in front of me into some thick manzanita brush. Sneaking carefully toward the bushes I saw them rise 40 yards away and go skimming off, despite the 2 charges of No. 7 which I hurled after them. I marked them down and stalked them systematically. When within 20 yards of where I had last seen them, the whole covey rose. The flurry they made as the big birds got up startled me so that my first shot went wild, but taking careful aim as they sped away I dropped the hindmost cock. Running forward with my empty gun, I flushed 3 more, which got away safe before I could reload.

A few minutes after, while sitting down, I saw a hen quail walking on a rock, jerking her crest uneasily. I potted her just as she was about to fly. Walking on I heard the call of a quail from near the roots of a pine. As I walked slowly toward the tree with my gun raised and my finger on the safety catch, 2 birds rose and flew in opposite directions. With a right and left I dropped them within 40 yards of each other, both cocks, in the pink of condition.

At intervals I had heard the bang of Dr. B.'s Parker, and concluded to see how many birds he had. On the way over I got 2 single birds. I found the Doctor had 8, all cocks.

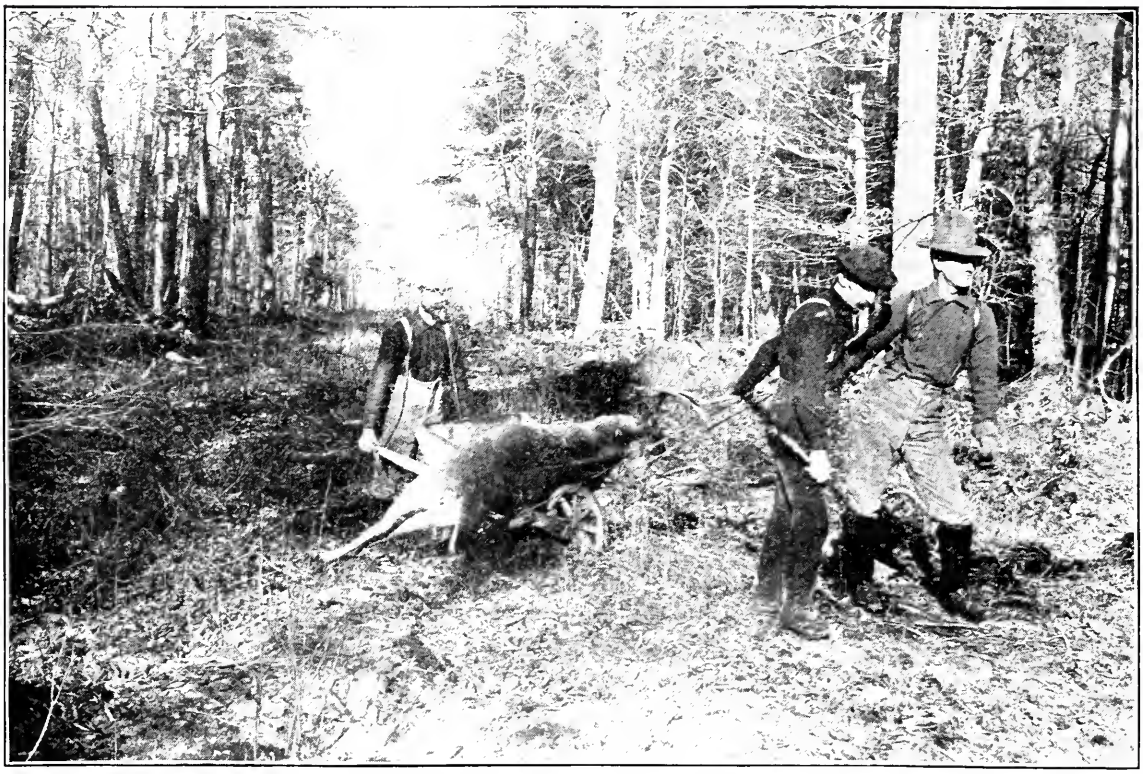
We decided to try our luck among a great number of boulders, covering perhaps 3 acres. Fifty yards ahead we heard the call of a quail, which seemed to come from a sumac bush among the rocks. Presently we saw a large covey running ahead of us instead of flying. Seeing that we could not overtake them I made a circuit, headed them into a little canyon, and each of us ran down a side. When near them they flew out at different sides of the canyon, giving us easy shots. Each got a bird.

On the way back to camp we saw immense flocks of mountain bluejays. These beautiful birds are a little larger than robins, with large, bright blue crests. They are found only in the high mountains of the Western States and Mexico.

HE AM DE FISH.

C. S. MARSHALL.

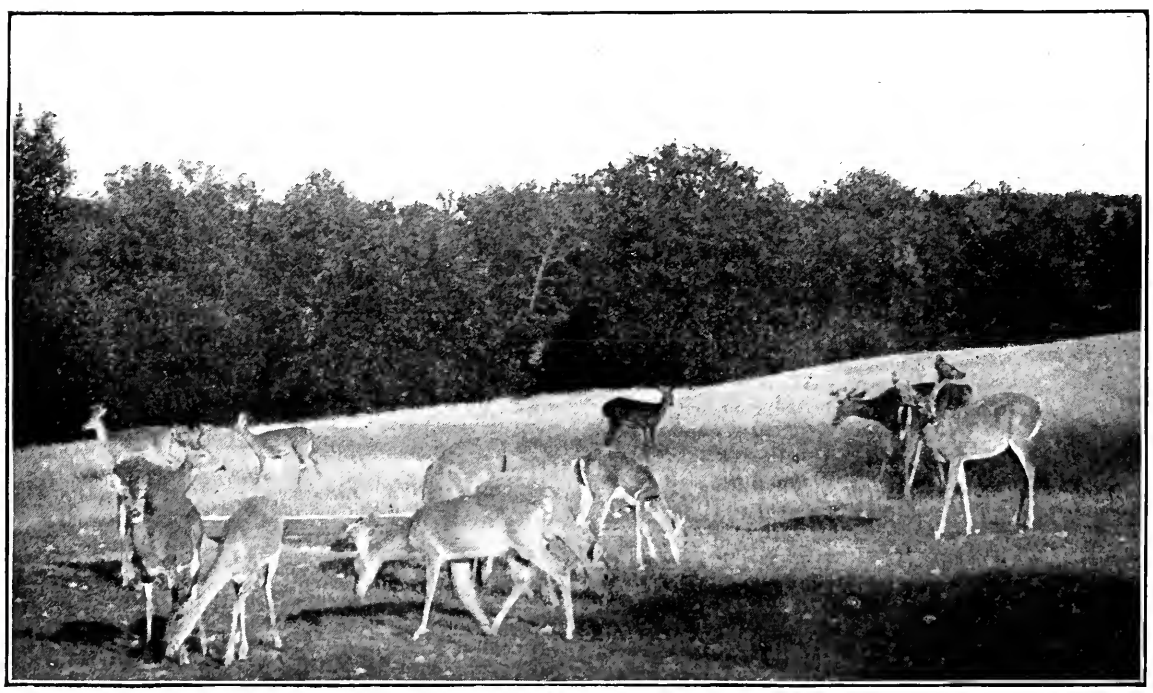
De trout he'll sometimes loaf an' wait,
  Den kinder wink at you;
De bass he ketch right holt de bait,
  An break your pole in two.
De perch he am so dredful small
  He scacely makes a taste,
An' de carp, whene'er he bites at all,
  Am only so much waste;
De eel am such a slipp'ry ting
  A nigger 'fraid of him;
While de turtle he am sho'ly king
  Of all de frauds dat swim.
But de catfish wid de forked tail—
  De fish wid de yeller sides—
De one what bites in calm or gale
  Am de fish to stuff our hides.
He takes yo' bait an' gulps it down,
  Clean down to his livin' place;
He am de fish, fried good an' brown,
  Dat sho'ly fits my case.



AMATEUR PHOTO BY A. B. RICHMOND

AN EASY WAY.

Made with Premo Camera, on Eastman Film. Printed on Velox Paper.



AMATEUR PHOTO BY E. J. STONE.

DEER PARK ON THE HURON.

ELK HUNTING IN WYOMING.

HARRY A. SHIELDS.

I had long wished to hunt big game in the far West and last summer I found 2 congenial friends, Mr. J. M. Murdock and Mr. W. W. Porch, of the same mind. We accordingly began, with the help of RECREATION, to make inquiries as to the best locality, etc. We decided to try Jackson Hole, Wyoming, and wrote Mr. S. N. Leek. He advised us to go in October. We then secured a copy of "Camping and Camp Outfits," by G. O. Shields, from which we got much useful information.

We started October 1st from this place, leaving Chicago the 2d, by way of the Chicago & Northwestern and the Union Pacific to Pocatello, Idaho, where we changed to the Oregon Short Line, which took us to St. Anthony, the end of our railroad journey. We had the finest train service and the most courteous attention possible throughout, which gave us an exceedingly favorable impression of everything Western, especially of the railroads in that part of our country.

At St. Anthony we were met by the local liveryman whom we had engaged to take us to our guide's ranch, Recreation lodge, 90 miles distant. We left St. Anthony at 1.30 p.m. and drove 38 miles to West's, where we had supper. We then pushed on to Jones', 20 miles farther, which we reached at midnight. In the morning, after an elk breakfast, the first we had ever tasted, we pulled out for the hardest part of our wagon journey. We soon struck the foot of the Teton mountains, and the farther we went the rougher and steeper was the road. Finally we all got out to walk to the top of the divide. We had 4 big horses in the spring wagon but they could go only a few feet without a rest. Luckily we met 2 empty wagons coming West and made a bargain with the drivers to help us to the summit. They hitched 2 of their horses in front and we finally reached the top. At 6 o'clock p.m. we were at our guide's place. It was nearly noon Monday before we got the 6 pack horses ready. Then we rode for the Grovont river, 22 miles distant, which we reached before 5 o'clock and went into camp for the night. The next morning we took the head guide and struck over the mountains to hunt, while the pack horses, under the care of Charles Wort and the cook, went by trail to State creek, our permanent camp.

Up to that time we had seen but one antelope, which Mr. Murdock missed. About 2 o'clock p.m., while riding through a park, we discovered our first elks, 2 bulls, in a fir woods to our right. The wind was in our favor. We dismounted and got ready our 30-40 Winchesters. The elks had taken the alarm, but we dropped both, one dead and the other mortally wounded. We were much elated at our early success, but we had to hurry. We quickly took a few photos, then the guide secured the elk heads, took some of the meat and we went on to camp, which we reached about dark. The tent was up and a big fire was burning. Supper was soon ready for us, and we did justice to it with the relish that only outdoor life can give.

The next day Murdock and I went with the guide to bring in the heads we had killed and some more of the meat, while Porch went with Charley to hunt for elk. On our way out we saw a large bull but too far off to shoot. We also saw 2 more bulls which we could have shot, but did not think their heads very good. We found our dead elks but were sorry they had not been disturbed by bears as we had hoped they would be. We packed the heads and what meat we could on 2 pack horses and returned to camp.

Thursday we hunted all day over rough high mountains, and though we saw a number of elks we did not get a shot. Friday we killed 3 large bull elks and I could have shot 3 more but as I had my allowance I let them go.

Saturday Leek went for the heads of 2 elks which had been left out the day before, while the rest of us staid around camp, and caught some trout in a small stream just below. They measured 13 to 15 inches. Monday we all went after antelopes. They were scarce on account of the lateness of the season, as they emigrate East to the great desert about the 1st of October. We killed 4.

The remainder of our stay was spent in hunting bears and although we saw lots of signs we were unsuccessful. In our 7 days' hunting we killed 5 bull elks and 4 antelopes, besides small game. I do not believe there is another place in the United States where there is anything like so much big and small game as around Jackson Hole. Anyone wishing to go there can get all the information he wants by writing any of the guides who advertise in RECREATION. I met several of them and they are all good men.

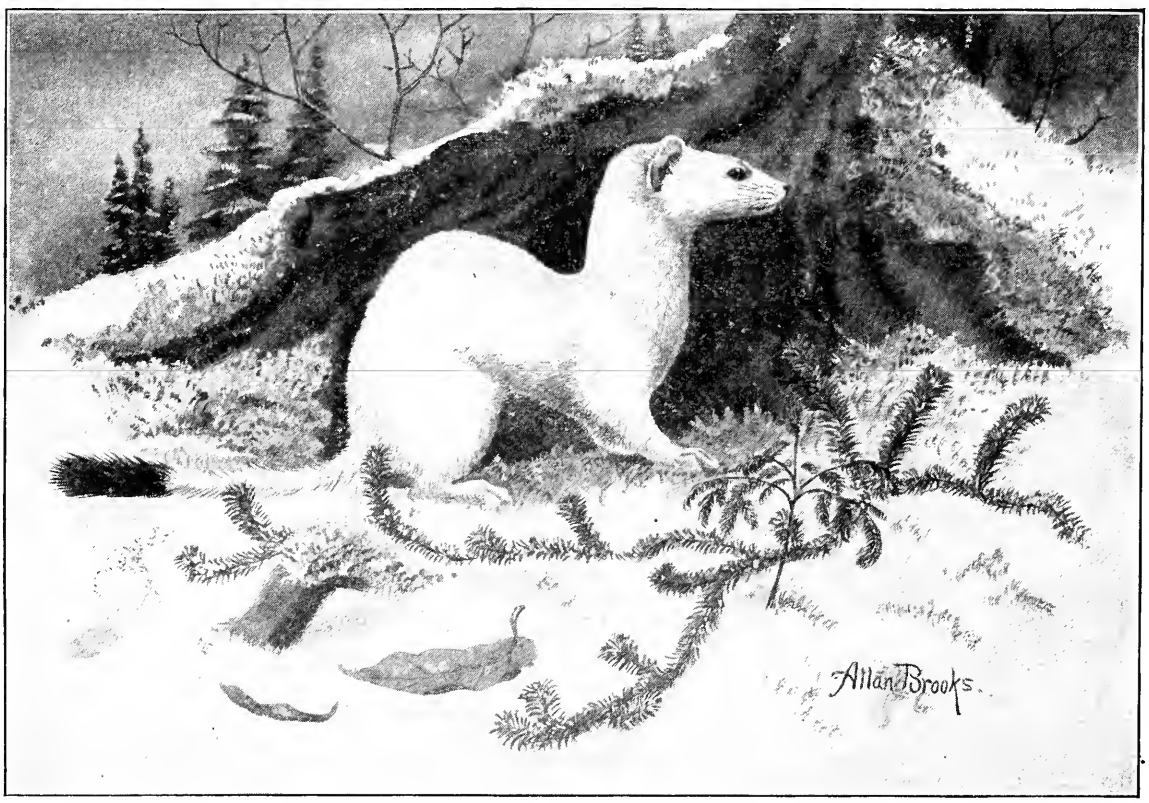
RICHARDSON'S WEASEL.

ALLAN BROOKS.

This weasel is best described as a large edition of Bonaparte's weasel, the common small weasel of the Northern States and Canada. Richardson's weasel has a more Northerly range than that species, replacing it throughout the Northern Territories and Northern British Columbia wherever suitable conditions occur. From Bonaparte's weasel (*P. cicognani*) it can be told by its larger size, proportionately longer tail, and the stronger suffusion of the yellow tone of the lower surface in summer pelage. From all forms of the long tailed weasel (*P. longicaudus*) the smaller size and much shorter tail are easy distinctions. The color of the lower surfaces in summer is also different, being pale greenish yellow in *richardsoni* and warm saffron yellow in *longicaudus*. Roughly speaking, any medium sized weasel found in wooded localities North of latitude 54 degrees, may be safely classed as Richardson's weasel.

In habits Richardson's weasel does not differ from others of this family, but seems to be of a fearless disposition. I have brought one to eat out of my hand within 3 hours of making its acquaintance, and this without confining it in any way. This was a female, and later she became a great nuisance. She generally showed up a little before midday and left about 3 o'clock to continue her rounds. If I happened to be skinning birds she became greatly excited, and would rush in and try to drag the body from my fingers. A male which used to visit my cabin in the early morning never became so tame. He was a fine specimen of his kind and amazingly strong. He could drag a grouse several times his own weight a long distance over the snow.

When carrying a small object in the mouth weasels rush along at full speed, with the tail erected straight up over the back. The illustration is from a sketch from liife.



RICHARDSON'S WEASEL. *PUTORIUS RICHARDSONI.*

Hymn of the skyscraper: Nearer, My God, to Thee.—Exchange.

A DEAD SHOT.

DAVID BRUCE.

An article in RECREATION entitled "The Albino Deer," reminded me of an odd experience I had in Colorado in '90.

I had spent 10 days at the ranch of a thrifty Scotchman in the beautiful valley of the Animas. It was the beginning of October and unusually warm for the time of year. I was collecting specimens in every department of natural history, and thoroughly enjoyed myself in every way.

One day a boy brought me the following note:

"Dr. purfeser, there is a wite dear on my ranch an i wud lik you to cum an shute it, i cud git a hundred dols fer it.

"Yours respect., L. Bailey."

Bailey's was 7 miles distant over a rough road. My landlord easily persuaded me to wait a few days as he was soon going that way and I could ride with him. My friend was a reckless driver and as most of our route lay between a deep creek on one side and a high, precipitous mountain on the other, over a road thickly beset with rocks and boulders, I made the journey with some trepidation. But the Scot managed the brake admirably, and we reached Bailey's without mishap. Bailey was away looking for a strayed pony. He was noted for his careless ways, half his time being spent in searching for a lost horse or cow. After a chat with his mother, and a bit of lunch, I rambled around the ranch an hour or so. All at once I heard a yell:

"Mister! mister! stop!"

On turning I saw a small boy on a large white mule. The lad exclaimed excitedly:

"Say, mister, do you want to shoot a bear?"

I assured him that life had for me no better charm than bear shooting.

"I can show you where you can shoot one quicker 'n a wink," he said. "I just rode past one bigger 'n a steer, an' he was sound asleep, too."

I had met bears many times; generally I was armed only with a butterfly net. Once, in running, I actually fell over a bear cub. Another time I met an exceedingly well behaved half grown bear in a berry patch. I then had a 16 gauge gun loaded with No. 10's, but as the bear "said nothin' to me, I said nothin' to he."

I carefully took my bearings from the lad's direction. He would have accompanied me, but the mule would not. I shall not describe how carefully I approached the whereabouts of my expected game. I at last thought I could make out the bear, so I worked around to a piece of rough rock that rose gradually from the mesa to about 20 feet high and I was then but a few rods from bruin. The watchful mountain marmots whistled loudly from the rocks, and I wondered why the bear did not take the hint, as this signal is generally headed by all wild animals. When I peered over the rock into the gulch I was startled to find myself so near the object of my search. Within 60 feet lay a large black object evidently just waking up, for I saw a movement behind the low cottonwood bush that concealed the head.

I took careful aim and fired, but was hardly prepared for the result. Up flew at least a score of ravens and about 50 magpies, but my bear stirred not. My rifle was ready, but it was not needed again. I knew in a moment what was the matter, and went fearlessly down the rocks into the hollow. I wanted no further explanation; the air was full of it. My bear was too dead to skin. The unfortunate animal had been dead several days. He was swollen out of all proportion and stank aloud.

I went back to the ranch tired and disappointed. Bailey and I spent 2 days unsuccessfully hunting the white deer. After I returned to Denver I heard it had been killed by a guide and sold to an Eastern tourist.

She—I never saw a married couple who got on so well together as Mr. and Mrs. Rigby.

He—Humph! I know! Each of them does exactly as she likes.—Brooklyn Life.

A CURIOUS OWL.

C. E. HUTCHINSON.

Me an' Jim Oliver was goin' 'long, one time, when we seen one of these 'ere burrowin' owls. I hadn't never seen none before but Jim he knowed what it was an', soon as he seen it, he sez to me, "See that 'ere bird settin' on the ground?" and I sez, "Yes."

"Well, that ere's the curiousest kind of bird there is. You kin walk clear 'round 'im in a circle and he'll foller yer with his eyes jest like his head was on a pivit, an' it'll jest go clean around."

Well, I laughed, but Jim sez, "jest you try it wonst." So I started out an' went clean 'round the thing, far enough 'way from 'im so he wouldn't scare an' fly, an' I'll be jiggerd if he didn't do jest as Jim said. Jim, he's the jokiest kind of a feller an' when I got 'round he sez, "keep on goin' 'round an' after a while his neck'll git wrung and he'll jist fall over dead, sure 'nough."

So I started out an' went 'round 9 times in the hot sun while Jim set under a gum tree, in the shade, and laughed. After I'd went 'round more times, putty nigh fallin' down all the time through keepin' my eyes on the blamed owl, so's to see if his head kept goin' the right way, I got plumb mad and I sez to Jim, "I'm jist goin' to stay with 'im if it takes all summer."

After I'd went 'round a lot of times, Jim says, "Them owls is got the rubberest neck you ever seen," and I sez, "That's no lie, Jim; but I'll wind his durn neck so tight that he'll strangle 'fore I get done."

I kep' on walking 'round, settin' down as of'en as I got dizzy. Bimeby the corral boss come along an' sez he, "Hi! the old man's onto you fellers foolin' away time over here, an' he's goin' to fire you."

So we got out of there plenty swift and then Jim says, "You dumb fool, that there owl's head don't go clean' round, nohow; it only goes part way an' then he turns it back again, so quick you can't see it go."

Mebby I wasn't mad when Jim told me that, 'til I seen it was only a joke he played on me.

They say them owls is all over out West, but this here one I'm tellin' on, was on a ranch close to Los Angeles, when we wasted good time over it.

I guess we was goin' to get fired, sure 'nough, but Jim told the old man the joke an' he laughed an' didn't say nothin'.

AMATEUR PHOTO BY MRS. W H MEYER.

SCENTING AN ENEMY.
Made with Korona Camera.

FOX TRAPPING.

J. A. NEWTON.

Formerly my home was near a succession of sand bluffs which contained innumerable fox dens, in which the young were reared, and which served, also, as secure retreats in winter. Foxes were always plentiful, and occasionally one was killed in front of hounds, but no one in the neighborhood could trap them except Daddy Jenks. He was a genial old soul, however, and wanted no monopoly. When he learned of my ambition to catch at least one fox, he offered to teach me how.

The first thing he did was to grease his traps well, after which he held them a few minutes in the smoke of burning corncobs.

"I grease 'em so they'll spring easy," said Daddy, "an' smoke 'em to kill the smell of rust; a rusty trap won't ketch a fox in a dog's age. 'Nuther thing, you don't want to handle 'em with bare hands after the smokin', so you see I handle 'em an' set 'em with these 'ere gloves."

A grain bag was filled with chaff, a quantity of lard scraps and smoked meat rinds were taken for bait, and Daddy led the way to a main runway on the bluff. It was toward the last of November and there was yet no snow. "If there was snow," said the old man, "it would make easier trappin'. On bare ground traps must be set in beds. Some use ashes, but they freeze easy if a little wet comes; I allers use chaff."

Jenks had placed pieces of rails during the summer at convenient points on the runways where he intended making sets when the time came. I asked him why he put them there so long in advance of the trapping season.

"Theye're to hitch the trap to," he replied; "and I put 'em here early so the foxes'll get used to seein' 'em and think nothin' of it when I come to set. Traps don't want to be hitched solid or the critters'll pull out or eat a foot off an' git away."

I noticed that a quantity of chaff was already in each place where he intended setting. Daddy said: "Foxes must be baited a while before settin' the traps. I put these beds here over a week ago. I've got 'em to comin' and takin' the bait; now I'll s'prise 'em by puttin' in the traps."

The bait had been nosed out and eaten from most of the beds, and a new supply was scattered. Then a trap was bedded so as to be level with the surface, the chain was stapled to the clog, and all was covered lightly with new, dry chaff. "It don't answer to tend fox traps more'n once a week," said Daddy, "so as to let your signs git old. An' don't never go closer'n 4 rods or jest nigh enough to see if the trap's sprung." A light fall of snow the following night obliterated our tracks, hid the beds and brought about the best possible condition for immediate success.

After the second night we tended the traps. Tracks were numerous all over the hills, and 2 traps were gone with their clogs. They had been dragged down the hill to where a fence obstructed the way. There we found our foxes, both young but nearly full grown. The traps were carefully replaced but that time were covered lightly with snow to avoid too much of a contrast. As Jenks put it: "You want to aim to have things look natural. Now we'll take these foxes purty near home to skin 'em, 'cause if we peeled 'em here and left 'em layin', foxes would make theirselves scarce in this neighborhood for a long time."

The field was large enough for us both, and I determined to test my own ability. I knew where lay the bodies of a horse and a sheep. When winter came and the foxes were reduced to eating carrion, I set traps near the carcasses, covering them with snow. I waited several days until snow had drifted over my tracks before visiting the traps. I found foxes had been circling the horse; but I had fastened the trap to a brush, and it looked so suspicious to them that they ventured no nearer than 5 or 6 yards. All I succeeded in catching there during the winter was 2 skunks and a neighbor's dog. At the sheep, success crowned my efforts. There the clog was a chunk and had been hidden in a snow drift. I followed a dim trail across the field to a large drift in which I found my fox, half buried and frozen hard. Frequent light snows came to hide any signs I made and by February I had caught 3 more foxes in the same trap.

I was elated and began to think fox trapping was not so difficult after all; but I had a lesson yet to learn. I had been catching the young and unsophisticated and had not been called on to frustrate the cunning of an old dog fox. The next fall I placed some beds and baited them for a week with lard scraps. A fox of the largest size had used the region for years, escaping all traps and hunters. His track could be distinguished from those of his fellows by its unusual size. As soon as I set the traps he promptly scraped them out of their beds, turned them over, ate up the bait and went his way. He played me the same trick several nights, seeming not

to fear my recent attempts. Of course if the traps had been handled without gloves, his recklessness would have vanished at once. I tried setting 2 and 3 traps in a bed, hoping he would accidentally step in one. But he knew where they lay better than I did, and all were turned over and sprung.

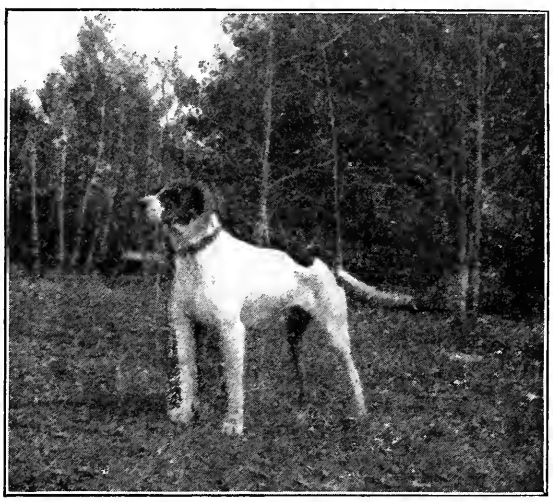
I was at length compelled to seek advice from Daddy Jenks. "I know a trick fer sech old chaps as that," he said; I'll go with you and see about it." After setting the trap so it would spring rather hard, he placed it carefully in its bed, but bottom side up. I marveled greatly at this procedure, but the old man did not explain it. The following morning we were both anxious to know the result and, to my surprise, found we had caught the wise old fox. He had turned the trap over as usual, which brought it right side up, but as nothing came in contact with the pan it remained unsprung. No doubt thinking danger had been removed, as on previous occasions, the fox had met his fate while recklessly treading around in devouring the bait. I never saw a more crestfallen animal; he cowered as we came up, looking as if he wished the earth might open and swallow him.

Practice makes perfect and I long ago discovered that many more foxes may be taken by using a proper scent at the place of baiting. In late fall and during the first half of winter the scent to be used is as follows: Tincture of assafœtida, one ounce; oil of anise, one ounce; oil of rosemary, one dram: mix. A few drops should be sprinkled on and within 5 or 6 feet of the bait, which should be lard scraps, fried meat scraps, and smoked meat rinds fried. The bait is never placed on the trap but around it, scattered in the bed of chaff. The bed should cover an area of 4 feet.

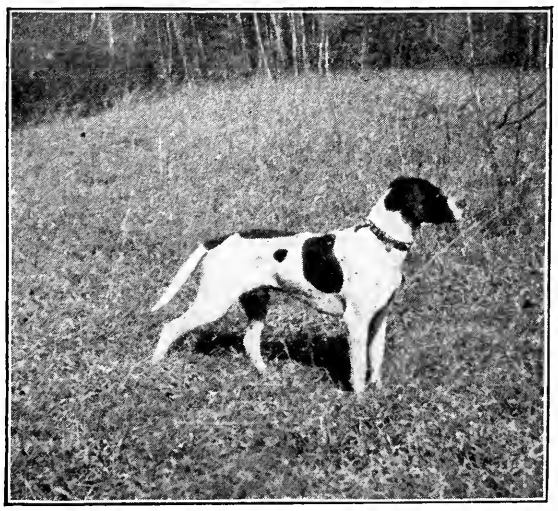
Bait should be scattered over as much space when trapping in snow as when baiting in beds; the trapper's expectations being based on the probability of the fox stepping in the trap while devouring the bait or sniffing at the alluring scent. It is always advisable to bait a few nights before setting the trap, especially in the first half of winter.

A CLEVER PUPPY.

Some time ago you published in your magazine several pictures of an untrained pointer puppy, showing his various points.



These seemed to indicate a well bred dog and one that would make a good hunter. I think these pictures which I enclose will stand comparison as showing a perfectly natural and lifelike position. These photographs were taken at the edge of the woods, and show the dog's listening and watchful attitude, occasioned by a rustling noise just ahead of him in the bushes and ready to hear the word to go ahead. At the time these snap shots were made he was 14 months old and had never had any training. On this occasion he was taken out to see if his breeding would show up the good points always looked for in this breed of dogs.



AMATEUR PHOTOS BY H. C. CHASE.

His qualities for a rapid worker were noticeable, for he scented quickly and was a stayer until he flushed his game.

C. C. Chase, Concord, N. H.

ELEGY ON A COUNTRY FISH HOG.

(With apologies to everybody.)

A. L. VERMILYA.

The curfew tolls the knell of parting day,
The setter pup hunts softly for a flea,
The fish hog homeward plods his lazy way,
And leaves not e'en a single fish for me.

Now fades the glimmering landscape on the sight,
As on the ground the dirty fish hog rolls;
"I got 'em all," he says, "how they did bite!
I fished all day with 27 'poles'."

He had 400 little speckled trout;
He had a fishing outfit kids would scorn;
He had a sodden face and piggish snout;
Oh, why was such a creature ever born?

He was a village loafer; just a bum;
Too lazy almost was the brute to talk;
His clothing smelt of grease; his breath of rum,
You'd know he was a hog, just by his walk.

But as he giggling lay upon the ground,
A fierce pain smote him in the middle part;
'Mong all his gearing quick it spread around
And stilled the beating of his selfish heart.

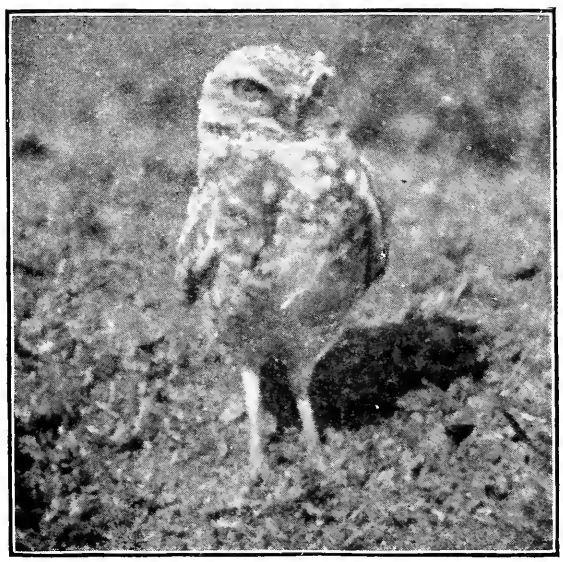
Too much poor tipple had he taken in,
So much at last it quenched his beery breath.
Now he was dead, no more he'd leer and grin—
Sometimes thou doest mighty well, O! Death!

THE EPITAPH (on a shingle).

Here rests his head upon the lap of earth,
A hog to decency and shame unknown;
He'd been a cussed nuisance from his birth,
And collywobbles marked him for its own.

Above him stands no chiseled granite gray,
They didn't even bury him, they tell;
Just where his soul has gone is hard to say
Though one might almost bet that it's in—well,

It surely isn't in that blest abode
To which the souls of decent sportsmen go;
Perhaps it hikes along the dreary road
That leads down to the other place, below.



AMATEUR PHOTO BY H. K. JOY.

YOUNG BURROWING OWL.

Highly commended in RECREATION'S 6th Annual Photo Competition.
Made with a Premo Camera.

A UNIQUE SOUVENIR.

WILLIAM BATTLE.

It was in the summer of '83, and I was spending a month's vacation in North Carolina with my uncle. Early one morning I started, with rod and reel, to find a creek which my uncle assured me would afford good fishing. As I trudged along I heard the rumbling of a distant wagon. It drew nearer and finally a heavy farm wagon drove noisily up behind me. "Halloo!" shouted the driver, drawing up. "We are going the same way; you might as well ride."

"Going fishing, I guess?" he remarked, as I climbed up beside him. In answer I told him where I was going. At that he laughed. "Why, I thought everybody knew that no fish could be caught in Diamond creek. I spent a day there last summer."

"Did you not catch anything?" I asked.

"Never even got a bite," he said; "but Jim Peterson was along with me that day, and I never seen so much fun out of a mortal in all my life."

The old man took a huge bite from a long plug of West Tennessee tobacco, readjusted his coonskin cap and crossed his legs comfortably.

"It was about 4 in the evening," he went on; "Jim Peterson and me had been fishing all up and down the creek, but had not even had a bite. We wound in our lines and started up stream to look for better luck. We came on a place where the water was clear as crystal and the current so swift that, assisted by a sharp turn of the stream, it would sometimes whirl sticks clear up on the bank.

"While we were wondering if we should go any farther up stream or not a 12-inch bass went ashore at the turn. We made a grab for him, but he was back in the creek before either of us could reach him.

"We stopped right there. Jim cast his line in the middle of the bend and I went a few yards up stream to a deeper place. After about 20 minutes of silent fishing I turned toward my companion to see what he was doing.

"There was an old stump at the water's edge. Jim was perched up on it with the heel of one boot propped up on the toe of the other and was fast asleep. I was looking around for something to throw at him when I heard a splashing at the bend and thought there was another fish ashore. No fish was in sight, but the current had forced an eel out of the water and sent it whirling into Jim's open shirt bosom, though I was not aware of the fact at that time. The cold, wet thud awakened the sleeper and his eye fell on the snake-like form of that eel doing the St. Vitus dance inside his shirt front.

"With a yell he turned a complete somersault backward over the stump and bleated like a sheep in a hail storm. He pawed the earth like a mad bull with a red pillowslip over its head, and broke down more saplings than you could pile on a hayrack. He kicked one of his boots off and ripped his vest in halves. The boot whizzed across the creek and caught on the end of a limb half way up a big high sycamore tree, and directly over the deepest place in the creek. Just about that time the eel slipped out of Jim's trouser leg.

"Peterson finally recovered from his delirium, and his first thought was of the missing boot. The look he cast up in that sycamore tree expressed great surprise and deep humiliation. The only way to get it was to wade the creek and climb the tree. When he had crossed and was half way up the tree I called his attention to a large hole in the very limb on which the boot was hanging; but he was too eager to recover his property to stop and investigate the hole.

"I stood watching and presently saw, to my amazement and horror, about half a million yellow jackets fairly boiling out of that hole in the tree. At first they did not locate Jim, nor did he see them. They whirled about the tree looking for the disturber, and so many crossed to my side I had to leave my post.

"As I started I heard a great splashing of water and knew my friend had been forced to drop from the limb. In another minute he came tearing through the woods drawing behind him a string of yellow jackets 50 yards long. There was a large frame barn at the edge of the woods, and for that we headed. We ran into the barn and through the stalls trying to lose those yellow devils. They followed us up in the hay mow and we swung down to the ground by a rope from the mow window. Just outside the barnyard we stopped to get our breath. From the barn came the bellowing of cattle and the squealing of shoats. Then a corner of the building burst like a torpedo and out came horses, cows, and hogs, all abreast. We resumed our retreat, leaving the animals to take care of themselves and the farmer to build a new barn.

"Somewhere in the drifts of Diamond creek there is an old white hat, but high in a sycamore hangs the real souvenir of that trip—an old, run-down, split-leather boot."

THE PASSING OF THE SALMON.

HARRY LEONARD.

It is an old story in the West; a story of bloodshed, a story of civilization and of murder. For, to our wild creatures, one means the other. Everyone knows the fate of the buffalo; the antelope are fast following. All our big game is taking that last journey from which there is no return.

Close behind them are following the game fishes; notably the salmon, which, a few years ago, were so thick one could almost cross a river walking on them.

When summer comes, the salmon comes; not in small schools or shoals, but by millions. They cruise along their favorite route, to their river homes. From early morning until late at night, great, glistening fish leap and fall. The bays and sounds are a dazzle of churning silver.

Suddenly their passage is obstructed. They turn aside at this obstruction; it may be a net or perhaps a wire screen. In either case, it is death. They follow that wire leader and slowly but surely go into the heart, then into the deadly traps, then to the spiller. It is all so easy, all so simple. When they realize they are caught, they dash wildly about at first. Then later, more deliberately, they seek that fatal opening. It is there, but they can not find it. Around and around they swim; they pass and repass the outlet. But not once do they see it; or seeing do they escape.

For hours, or perhaps days they swim about that fatal barrier. Ever more weary, ever growing in numbers, until in fatal mercy, a great net closes about them. A swing in air; a blinding flash of light, and soon the salmon dies beneath tons of suffering brethren.

Such is its welcome home. Above water, in scows and tow-boats, are perspiring men, wet and bloody, throwing, hauling and heaving. One crew relieves another; there is no stopping. From morning until evening it is a struggle to kill. The fish run in as fast as they are bailed out. Then darkness comes and a forced rest until morning. When morning dawns again the killing begins.

Sometimes a great black and yellow body, 12 feet long, leaps in air. The water foams. Crash! thud! The water grows bloody. Another well directed blow and all is over. Then into the scow is dragged a great sturgeon. Occasionally a seal is captured and the scene is reacted.

Smelt, herring, trout and many other fish that stray into the great traps escape through the large mesh on which the law insists. But there is no escape for the lordly chinook, the grand tyee, the handsome silver, or the ugly humpback salmon; all are served alike.

Meanwhile the long tailed heathen in the cannery are cutting and cleaning all day and all night. They must make the most of this silver harvest. Slowly but surely they drop behind. More men are set to work, but no use; the fish are coming too fast. Then comes the dread report, "fish spoiled;" and great tugs face seaward, towing scow loads of fish to be dumped overboard.

Still the traps work overtime. Then comes the sickening part of it. The dead fish float ashore to mingle with the offal of the canneries and a stench arises that nearly drives one mad. The excuse for it, if one is sought, is that the fish will die anyway.

So the killing continues, each year getting worse; greater traps, greater capital and greater contrivances.

Our government is doing all it can to propagate food fishes and to restock our waters; but how long will it be before our salmon are practically exterminated?

"I'm so tired this morning," said the first moth.

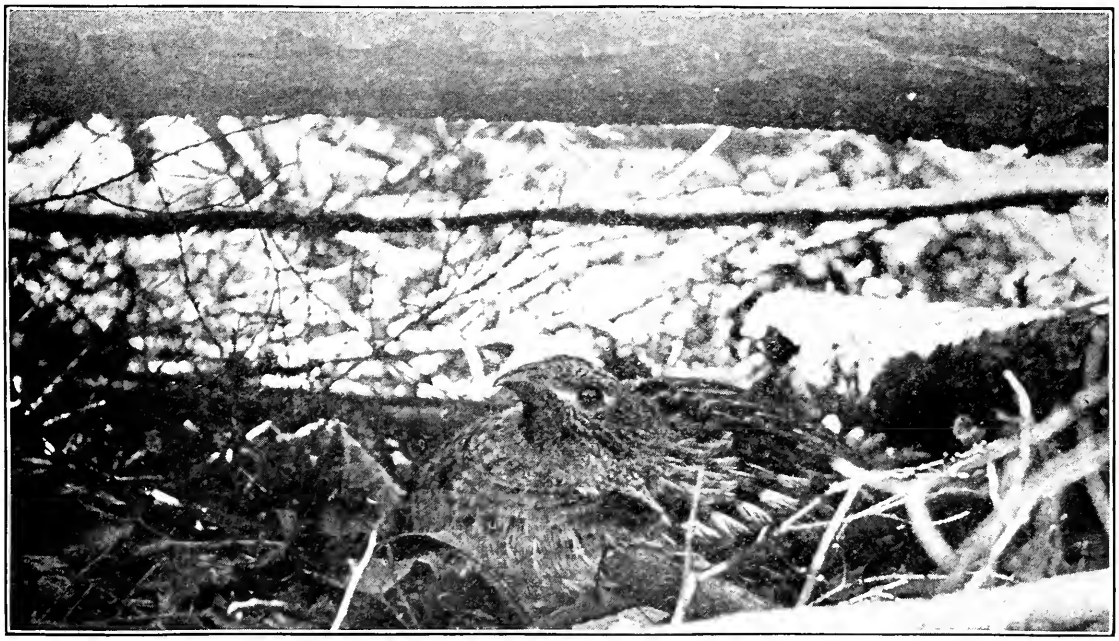
"Up late last night?" asked the second.

"Yes," replied the first, "I was at a camphor ball."—St. Paul Globe.

A CLOSE CALL.

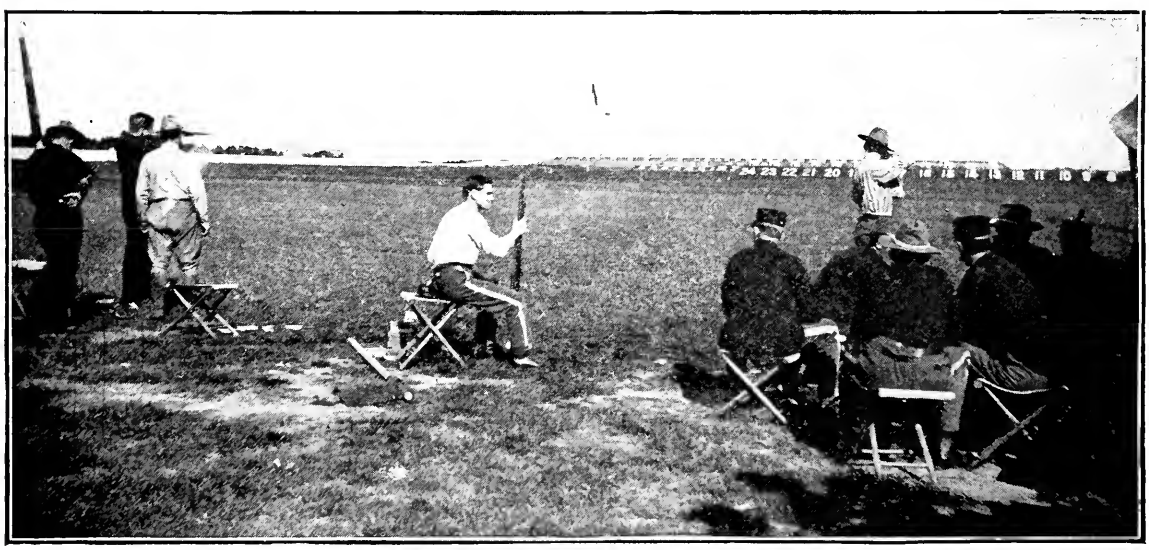
I send you a photograph which I consider remarkable from the fact that the negative was made with the camera within 2 feet of the grouse. The camera was a Premo. The focusing was done on the bird herself. She had evidently just hatched her eggs, as the shells were in the nest in front of her. Two or 3 eggs show at the extreme left of the picture in the foreground. Woodchoppers have been at work around this nest for some weeks past and have been able to approach very near the grouse on several occasions.

E. F. Worcester, Hudson, Mass.



COPYRIGHT APPLIED FOR BY E. F. WORCESTER.

RUFFED GROUSE ON NEST.



AMATEUR PHOTO BY F. L. WILCOX.

SHOOTING ON THE 200 AND 300 YARD RANGES AT SEA GIRT, N. J., DURING THE TOURNAMENT OF THE NATIONAL AND N. J. STATE RIFLE ASSOCIATION.

Made with Korona Camera. Printed on Carbon Velox.

A BEAR HUNT.

OLD SILVERTIP.

We had pitched our tent on a small stream known as the Mee-tee-tsie. We were in the Mole hills for the purpose of getting a bear, and we meant to have one if possible. My partner had just bought a 45-70-405 Winchester repeater, and on the way to our camping ground he had urged me to try his rifle on the first bear we saw. I have no faith in a repeater and do not like to use a strange rifle on game. When a man tackles one of these Western bears he takes his life in his hand. They are not like their Eastern brothers, that one can kill with a shot gun. God only knows what possessed my pard to take his gun apart that night, or why I used it the next day. The next morning, the first in camp, I went down to the creek for water and saw a bear trail. I rushed to the tent, told pard how it happened and where the creek and buckets could be found; then took his gun and started. The trail was so fresh that I expected to kill the bear and get back in time for breakfast. I followed that trail 5 miles. Then I found him. It was not the kind of bear I wanted. It was a baldface, or roachmane, and they can put up a better fight that any other kind in North America. They are always on the "prod." I had no faith in the gun I carried and I had found what I hadn't lost. The brute had either seen, heard or winded me, for he was headed my way. His hair was uncombed, and standing on end. His eyes flashed fire, and why he passed our tent without giving us a call, I can never tell. About 10 feet from me was a fine tree to play "Jack and the bean-stalk" on. Thank God, these animals can't climb. We were about 75 yards apart. "Now I'll put a bullet between his eyes," I said to myself. Where my bullet went, I never knew. Then something sounded like a steam-whistle let loose, and I saw a red cave fringed with black coming my way. To say I pumped that gun for another cartridge would be putting it mildly; and it stuck! One look at that mammoth cave, and one at the tree. I took the tree. The game changed; hunter up the tree; bear and gun on ground. There I was, and there I staid, with the bear below. The day came to an end. The part of me that I use to sit on grew sore, and every move I made brought a growl from below. One good thing, no human being was there to see the show, but I wished one would come that way. As the sun went down behind the hill a new danger stared me in the face. If I dozed, and fell off the limb, it meant death. Then again, the air was getting cold, and I was chilly. Twice during the night I could see the bear's eyes shining below me, and I knew he was still there. How often I climbed up and down that tree and around it to keep myself from going to sleep or getting cold, I have no idea. I tried to lash myself to the tree with my cartridge belt, but it was too short. When daylight came, the bear had gone. I never left the tree until it was good and light. My first move was to get that —— rifle. There is always the last straw to a load, and I found it. The blamed thing worked all right. Had I been sure I should not need it before getting to camp I should have broken it. However, I pumped a cartridge into the barrel and started back. I met my partner on his way out to look for me. After I had expressed myself to my heart's content, he looked at me serenely and said:

"Joe, I forgot to put in the pin that holds the finger lever in its place with the breechbolt."

Ye gods! All night up a tree for the want of a pin!

Brakeman—Now, then, miss, get in quickly, please. The train is about to start.

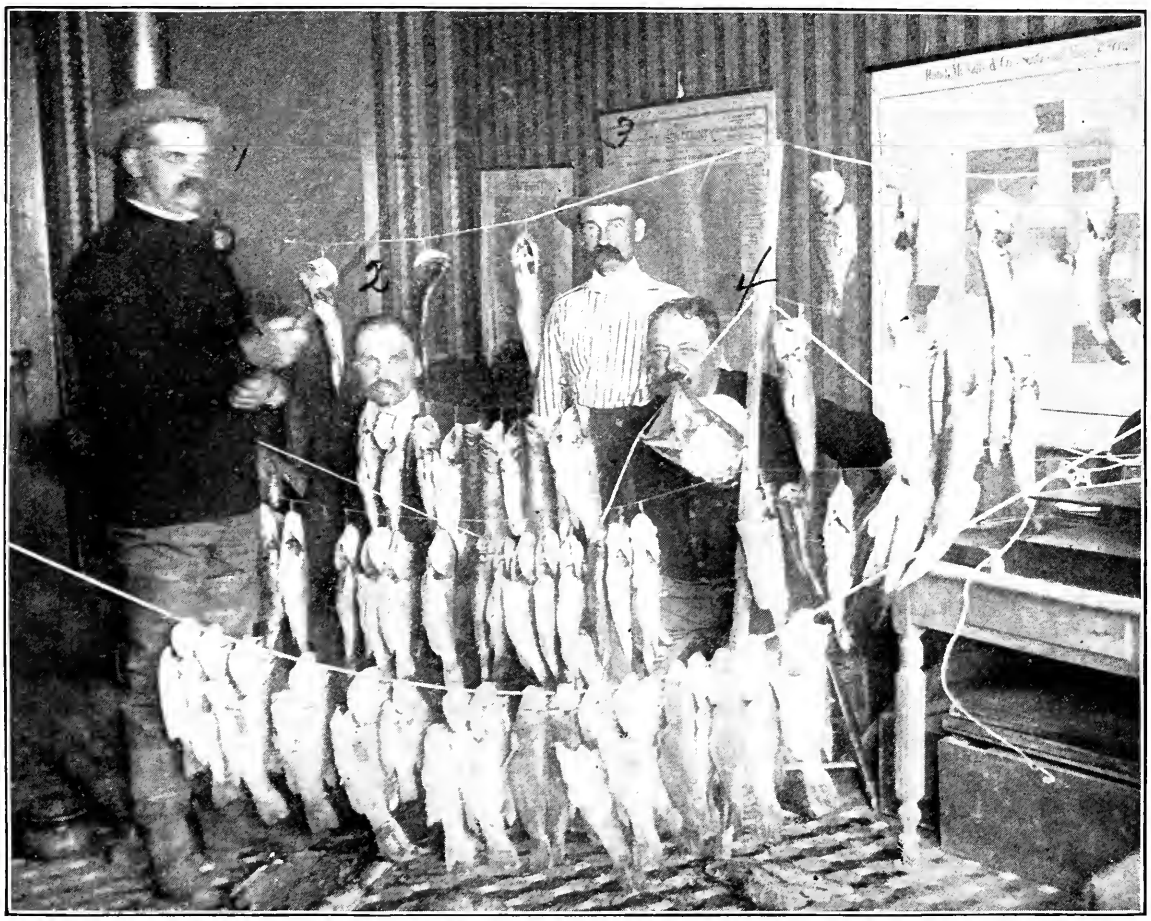
Young Lady—But I want to give my sister a kiss.

Brakeman—Get in! Get in! I'll attend to that for you.—Exchange.

SOME SPECIMENS OF THE SOUTH DAKOTA BREED.

The many readers of your valuable magazine in this part of the country enjoy much the juicy roasts served by you, of which the game hog is the *piece de resistance*. Particularly are we interested in the fish laws and the preservation of fish, we having so few streams and lakes in which any fish are found.

I enclose you a clipping taken from our local paper; also a photograph taken of the remnants of this catch, the balance of the haul having spoiled.



No. 1 is A. E. Hitchcock, a prominent lawyer of Mitchell, candidate for Attorney General of the State in 1900; No. 2 is W. E. Crane, a physician and surgeon of the C. M. & St. P. R. R. in South Dakota; No. 3 is F. H. Winson, ex-State Attorney of Davison county; No. 4 is R. D. Prescott, of Mitchell.

I send these as an addition to your pen. Your good work in this line is appreciated from Maine to California.

Subscriber, Mitchell, S. Dak.

The clipping referred to is as follows:

Dr. Crane, R. D. Prescott, A. E. Hitchcock and F. H. Winsor returned Monday from a 2 weeks' fishing trip at Big Stone lake. They had a pleasant time and tell some big stories of their luck with rod and reel. Mr. Prescott caught a 26-pound muskalonge and brought its head home as a proof. The party brought home 360 bass. Monday afternoon and the fish were hung up in Mr. Prescott's office and a photographer took a picture of the gentlemen and the fish.—Mitchell (S. D.) Gazette.

The reader will have noticed that the local editor says the photographer "took a picture of the gentlemen and the fish." He should have said of the swine and the fish. There can be no mistake as to the character of these men when one looks at their faces. Every feature of each of these men indicates that they would never quit shooting or fishing as long as they could kill anything more. Such men are a disgrace to any community and I am safe in saying these vile wretches will be shunned by their neighbors from now on.—EDITOR.

La Montt—Here is a periodical devoted to air navigation.

La Moyne—Must be a fly-paper.—Philadelphia Record.

FROM THE GAME FIELDS.

The man who quits when he gets enough, with plenty of game still in sight, is a real sportsman.

THE SITUATION IN CALIFORNIA.

I am sure you will confer a favor on many of your readers, as well as do a good turn to game protection in California, by publishing the enclosed clipping from the Stockton (Cal.) *Independent*. The writer of the article, Mr. Lyman Belding, is one of the few remaining veteran ornithologists and sportsmen of California, and has traversed the country of which he writes every summer for years past. His remarks therefore possess unusual value on the question of game protection.

C. Barlow, Santa Clara, Cal.

Game, with a few exceptions, is decidedly rare in California and it is not likely to be nearly so abundant in the future as it has been in the past. Sportsmen are becoming more numerous each year, from Alaska to San Diego, and a corresponding decrease in game is the inevitable result. The occupation of the market hunter is about gone.

The valley quails will probable increase the first favorable year. The 3 preceding winters have been comparatively dry and therefore unfavorable. Few young valley quails mature after a dry winter, owing to a scarcity of water on the breeding grounds. I first noticed this in several interior and coast countries in the fall of 1871, and later observations have confirmed it. Only 5 or 6 years ago quails were as numerous in many parts of Calaveras county in the first of the shooting season as they had been during more than 40 years; but when the season closed market hunters had left so few living birds neither sportsman nor market hunter has found pleasure or profit in hunting them ever since that time. Few valley quails have been killed out of season in the central valley and foothill counties. Formerly gun clubs looked after their protection and helped largely to create a sentiment in favor of the observance of the game laws. Then the farmer and town or village sportsman were friends and the sportsman felt that he lived in a delightful, free country; but now it is different.

The public game on most of the marshes is monopolized by a few persons and on the uplands the most of it has been appropriated by selfish landowners. The public trout is going the same way. Even the distant, world-renowned McCloud river is now mostly controlled by a few individuals, with all the fine trout in it, some of which were planted there at public expense, but which the public may not now angle for.

Perhaps the State Sportsmen's Convention will devise some way by which more Californians will have an interest in game. As it is now, few of them have any, and without a radical change the many should not be taxed to protect game for the benefit of the few. There are no more people to the square mile in the chaparral belt, where most of the valley quails are, and no more stock on the ranges than 30 years ago, when a sportsman was free to shoot almost anywhere. In the high mountains what little protection game has is for the benefit of the wrong persons, to the detriment and annoyance of the right ones, as I will hereafter demonstrate.

Ducks which are on our marshes in the winter breed in Alaska, British Columbia, Washington, Oregon and Nevada, beyond our protection. They have human enemies in nearly every place where they stay or go and are likely to become scarcer.

Deer are scarce in the Sierra Nevadas, but they would become plentiful in a few years if protected throughout their ranges. This is impossible without an army of game wardens to patrol the range. Now there are only here and there deputy wardens, or informers, at some of the summer resorts, who seldom look for information in the field or get a mile from their homes.

The game in the Coast range, particularly the most of it North of San Francisco, has little more protection than the game in the Sierras. There are 40,000 square miles of the State which have been and should be a sportsman's paradise, but most of its game has been destroyed by Indians and sheepmen, many of the latter being non-citizens, and the former natives of Nevada. Thousands of campers visit the mountains every summer, but they seldom get much game, though they seldom respect the game law.

Some years ago, after a severe, early snow storm had caught and killed many adult deer in the upper Sierras, deer killing was prohibited for 2 years; but at the end of that time there were no more deer in the Sierras than at the commencement of the closed period, although few or no young deer had been caught by the storm, as they, like the mountain quails, had gone down the West slope

out of reach of it. The only result was that Indians and sheepmen had almost a monopoly of deer killing during the prohibitory period. I doubt if there were any more deer in the Coast range at the end than at the beginning of the 2 years. A friend who stopped 2 weeks at a sheep camp in Humboldt county, told me they had venison during all the 2 weeks, and as many as 6 deer at one time were hanging in the camp; and that during the prohibited period.

When I began, in 1857, to hunt in Calaveras county, deer were as rare as they are now, there having been a great demand for venison in early mining times. They soon became plentiful when beef became cheap, and were really abundant in 1885, when about 100 Washoe Indians for the first time wintered in Calaveras and soon nearly exterminated the deer in that county and a part of Tuolumne. A Mr. Williams told me he bought 1,200 deer skins from those Indians that winter, and they were said to have sold as many more to other traders. They came over the next winter and killed the most of the remaining deer. A supervisor of Calaveras, Mr. Stephens, told me a year or 2 afterward that they were saving their deer for the Washoe Indians and when there were about 3 more these Indians would come for them. From 1857 to 1885 deer increased in Calaveras county, though it was considered perfectly proper to kill a deer whenever meat was wanted during that time.

Formerly the close season extended to October 1st, by which time there was little game in the mountains above 5,000 feet altitude and visitors from the valleys and coast had gone to their homes; consequently during September there was a universal disregard of the game law, and there will not be much regard for it in the mountains until Indians and stockmen are compelled to observe it. It will be difficult to make them do so, as they roam over every part of the mountains, not one-hundredth part of which is visited by anyone else excepting a few energetic sportsmen and explorers. A yearling deer is worth half a dozen old ones, as it is a luxury, but an adult black-tailed deer, our species, seldom or never is. However, it is dangerous to shoot a yearling deer, because of the difficulty in determining the sex, especially if running in thickets; and a conscientious hunter is liable to violate the game law unwittingly. Unquestionably the game law in the Sierras does not protect game; it simply annoys the person whom it should not affect.

Grouse are becoming scarcer in the Sierras each year, for which sheepmen and sheep are mostly responsible. But for them grouse would soon become abundant.

Mountain quails are not decreasing, except perhaps slightly near summer resorts, and along routes of travel, as they are seldom molested by Indians and stockmen.

Doves are among the best friends of the farmers. They breed from May into September and during all the intervening months.

The State is greatly interested in having her young men learn to shoot, but it looks as if their opportunity to do so was becoming necessarily difficult.

Lyman Belding.

SHALL WE MAKE PETS OF WILD BIRDS AND ANIMALS?

Dr. T. S. Palmer,
Agricultural Department, Washington, D. C.

I have had some correspondence with Mr. Schmid, a game dealer in your city, with regard to the purchase of certain live birds and animals and in one letter he quotes you.

I think it would be well for the League and your Department to get together on some general policy regarding this matter. The Lacey law does not attempt to regulate the shipment of live birds or animals within the States or from one State to another. Its provisions as to the inter-State traffic are all with relation to dead birds or animals.

Leaving this question out of discussion at present, I should be glad if we could adopt a policy of encouraging a rational system of keeping birds and animals in captivity. It is true the privilege would be abused. Such creatures would in many cases be kept in small cages and improperly cared for. Many other people, however, would take proper care of them, would give them plenty of room, good food and kind treatment. In such cases a bird or a squirrel, for instance, is better off in domestication than it would be in its natural state, for it has no trouble in getting its food, nor is it liable to be killed by hunters or by its natural enemies. Then, the more people see and know of birds and animals the better they like them and the less likely they are to pursue and kill them when found at large.

Take, for instance, the albino squirrel I have in my office. Hundreds of people who have seen him here have said they would never wish to kill another squirrel in the woods. We have a mockingbird at our country club, and people sit there and watch him and listen to him by the hour. Then they say: "How could anyone be cruel enough to kill such a beautiful and inter-

esting creature when found at large?" We have some flying squirrels there that are a constant source of interest and amusement and they are making converts every day to the cause of game protection. I am planning to propagate birds, squirrels and other wild creatures in large cages enclosing trees, and I, of course, would not deny others the privilege we claim for ourselves. Our Zoological Garden and parks are great educators on these lines, and if a society is allowed to entrap and confine hundreds or thousands of birds and animals, why should not an individual be allowed to keep one or 2 of each?

Kindly think this matter over and let me have your views.

G. O. Shields.

DOCTOR PALMER'S REPLY.

There is not much difference of opinion between us on the subject of keeping live birds and animals in captivity. Although dealers blame the Lacey Act because their sales have been curtailed, the real source of their trouble lies in the enforcement of local laws. The export of quails from the Indian Territory has been curtailed by enforcing the Territorial law (R. S. 2137). Action against bird dealers in Chicago was taken under the Illinois State law, and dealers in the District of Columbia are prevented from selling certain cage birds by a provision in the District law to the effect that no person shall catch, expose for sale, or have in possession, living or dead, any wild bird except game birds and certain species mentioned by name.

Personally, I see no objection to keeping a squirrel or a mockingbird as a pet and I do not think our local law was intended to prevent that sort of thing where the privilege is not abused. As far as I am aware no attempt has been made to interfere with pets in the hands of private individuals, either in the District or in New Jersey, where the game laws are strictly enforced.

I agree with you entirely that certain birds in captivity are valuable for purposes of education and for arousing public interest in game protection. Much more might be accomplished in the way of domestication than has yet been done. Wood ducks might be bred in captivity, and experiments made in domesticating sage grouse, the beautiful little Massena partridge of the Southwest, some of the wild turkeys, and even in raising the prairie chicken in captivity. The laws of every State should contain a provision for obtaining birds for propagation; but this matter should be under strict supervision, and sale and shipment allowed only under permit. There should be no objection to catching a few birds for domestication, if done by properly authorized persons, but the time has passed when every bird catcher can be allowed to trap, ship, and sell *ad libitum*. The abuses which have grown up with the live bird trade in the United States are not generally recognized. I have known quails ostensibly shipped for propagation to be sold to restaurants or killed for market, on arrival at destination. Such large numbers of bright colored birds are trapped near certain cities that some species have been almost exterminated in those localities. The District of Columbia has not yet recovered from the excessive trapping of cardinals which occurred a few years ago. Cage birds are caught not only for the local market but for shipments abroad. Last winter I saw 250 cardinals in one store in New York which were destined for South Africa. This is the kind of trade that State laws attempt to prevent.

As far as the District of Columbia is concerned, local dealers are allowed to sell squirrels from November 1 to February 1, and quails from November 1 to March 15; and while they are prevented from selling certain native species as cage birds they can sell foreign birds in any number at any time. The reason is obvious. The vicinity of the National Capital should be in the nature of a park, where native birds and animals are strictly protected. If they can be sold by local dealers it simply encourages wholesale trapping and nest robbing. The trade in live birds and game should be placed under even more stringent regulations than the trade in dead game, but ample provision should be made for propagation and domestication.

T. S. Palmer,
In charge Game Preservation.

ALASKAN GUN AND GAME NOTES.

Portland, Ore.

EDITOR RECREATION:—While in the Yukon valley we seldom saw magazines and newspapers. In Dawson it was a great treat to find RECREATION, and $1 a copy was willingly paid for it.

Since coming home, after an absence of 2 years, I find the great gun question is not yet settled, and that the gun crank is as bad as ever. On the Klondike river, from 50 to 100 miles from Dawson, quite a number of large moose were killed in '98; several of them dressed over 1,000 pounds. One hunter, with a single shot, 30-40 smokeless, with telescope sights, killed 23 moose last season. He sold the meat at 50 cents to $1 a pound.

Many hunters claim that the .30-40 is the best gun for moose, Alaskan brown bear, and grizzlies. I own a .30-30, and killed a 400 pound black bear with it, using lead point bullet. Most old hunters cling to the .45-70 black powder or U. S. Govern-

ment cartridge, claiming the heavy bullet has more killing power. One more or less truthful man said he had 2 horses shot on the Hottinqua river by a hunter who mistook them for moose. A steel-pointed bullet went through each horse, he said, but in a few days he was working the team again. I can believe that a man or a horse who could live up there one summer and stand the mosquitoes would not mind a little thing like a bullet.

The boys in Gold Run say they object to the .30-40 because it kills game so far away the meat spoils before they can get to the animal to clean it.

Speaking of game, Dr. E. O. Smith, a gentleman of veracity, who went to Dawson by way of Copper river, said mosquitoes darken the sky, and he had to throw up a stick or rock when he wanted a ray of sunlight. The mosquitoes and black gnats in summer spoil the pleasure of hunting. On the river when a current of air strikes them, they are not so bad; but woe to the hunter when he lands and walks over the moss and through the underbrush, for then they rise in clouds.

A few grouse and ptarmigan are found near Dawson. We had heard that ducks and geese were plentiful, but did not see many during the year spent there.

In June we left Dawson for St. Michael in an open boat. The distance is about 1800 miles and the trip is usually made in 21 days. We were 32 days on the way, through not knowing the route. The Yukon river in places is 30 to 40 miles wide. When one leaves the main current, which is hard to follow on account of the numerous islands, it may take 8 or 10 days to find one's way out of the tangle again into the main stream. On the upper part of the Yukon the current runs 4 to 5 miles an hour, but near the sea there is hardly any current.

We did not see any animals or game along the Yukon, except the bear we killed. That was busily engaged, either fighting black gnats or digging roots, on the bank of a side stream on which we had been lost several days. We approached within 150 yards. I shot him with a .30-30 soft point bullet. Although badly wounded he made off into the brush nearly a mile. The black gnats nearly stung us to death before we could get him out of the woods. It was several weeks before our faces were reduced to ordinary size.

The Indians get but little game and live almost entirely on dog salmon, dried without salt. They are fast dying off. The white man's food and whiskey do not agree with them. Consumption seems to carry most of them off, and we saw few old persons among them.

The flats on Northern sound, near St. Michaels, are the building ground of sandhill cranes, and the great Northern diver, or loon. While camped on the shore we could hear their weird cries all night. Sitting around the driftwood fire on the shore of the Arctic sea, we fancied we were listening to the wailing ghosts of gold seekers who had perished from a surfeit of beans and bacon. The hog may be an unclean beast, no doubt a game hog is, but what would the miner on the Yukon do without sow-belly and the rich, and nutritious army bean?

B. F. Clayton.

KILLED TOO MANY SHEEP.

I recently heard that R. T. Boyd, of El Paso, Texas, had killed 20 mountain sheep in old Mexico, and am informed the report was true. I asked him where he found the sheep. He replied as follows:

The first mountain sheep I killed was in '96. I drove about 40 miles out from the Mexican town of Ahuarnado, 90 miles South of El Paso, in a light buggy, carrying a saddle with me. When I could drive the buggy no farther I mounted a horse and hunted diligently 2 days. The finding no water I had to turn homeward; but in making for camp I found a young buck sheep about one year old, which I had the good fortune to kill. The sheep in that part of the country are in isolated peaks of lime formation and barren of all trees.

I made my second trip into those same mountains in February of this year, with Robt. Gloschear, and we brought down 2 sheep, but not finding a large one we went West about 70 miles and found several. Still we saw no large heads. There we killed 2 more sheep and captured a small one which a Mexican has been successful in raising. We have the heads mounted and they make live looking specimens.

I had another trip in March, with Mr. Townsend, of the firm of Townsend & Barber, taxidermists and naturalists. We went after some museum specimens that time and were successful. We brought down 8 sheep and 2 blacktail deer. It seems that this is a new species and is in demand at all museums. In that hunt I got my first big sheep head and I had it mounted life size. It is just finished and is an interesting and beautiful mount.

My next trip was with Mr. E. E. Bliss, of Denver, Colorado, in April. We traveled about 100 miles East of Ahuarnado and we got 2 sheep heads, the largest that have been brought out of Mexico. Mine measured 16¼ inches at base of horn.

There is no meat, domestic or wild, so good as mountain sheep steak. We saved all the meat that was killed and, excepting what we ate ourselves and gave to friends, the balance was served in the hotel.

I understand that in Colorado the sheep are high up in snow and pines, but in Mexico they are never near the pines and do not always see snow even once a year.

R. J. Boyd, El Paso, Texas.

I regret to hear that you should have killed 8 mountain sheep on one trip, and still more that you should have killed 10 in one year. That is altogether too great a slaughter for any one man to be guilty of. The fact that you have since sold the skins to museums does not justify you. The big game of this entire continent is threatened with extermination. The buffalo has gone and the antelope nearly so; and at the present rate the last mountain sheep will be killed within a few years. I wish all sportsmen who hunt sheep would limit themselves to one or 2 each in a year. The end will come soon enough at this rate; but the evil day may be postponed for some time if all will be moderate.—EDITOR.

GOOD SUGGESTIONS.

The State Fish and Game Commissioners of Montana have made the following recommendations of the Governor of that State.

Coal dust and other noxious materials should not be dumped in streams which bear fish.

The State Board should have power to take any birds or animals for parks and scientific purposes, and power to introduce game animals, birds and fishes.

The exact dates when the open seasons for game begin and end should be stated.

Annual reports should be made to the State Board of all animals under domestication in the State.

Seines should not be allowed in taking fish, except by authority from the State Board, and then for a definite time and place.

The clause relating to the sale of game fishes should be more specific. If the law contemplates that trout should not be sold, it should say "all trout." Experts, so called, are brought in to prove that certain fish are not speckled mountain trout, as protected by our laws.

Shippers should be required to exhibit bills of lading of game and fish, on demand of those having authority.

A definite time should be given, after the end of the open season, for game dealers to dispose of meat. After the expiration of this time possession should be *prima facie* evidence of violation of the law.

The present system of appointing wardens should be abolished, and in its place the power of appointment should rest with the State Board.

To raise funds for the expense of the system a small license fee should be placed on guns, except those regularly in stock by dealers; a small license fee for registered guides; a small fee from taxidermists, to show where hides and heads go; and a fee for a permit to hunt. This should be larger for non-residents than for residents.

The disposition of the fines should be changed. One-half should go to the game and fish fund, the other to the school fund.

Snipe, plover, and doves should be protected by law, and a limit placed on the bag of ducks that may be made. A bounty should be placed on mountain lions, lynx, and wildcats.

Screens should be placed in irrigating ditches, and before the water wheels in mills.

A close season should be established for fish, and no one should take, in one day, more than a definite weight. None should be taken below 6 inches in length.

A State fish hatchery should be established, and 3 to 5 million young placed in streams annually.

Congress should be asked to build a fishway in Clarke's Fork, at Columbia Falls, and to establish, by survey, the Northern and Western boundaries of the Yellowstone Park.

WITH THE DUCKS IN OCTOBER.

One day in October the wind suddenly changed from a mild South breeze to a Northern roar. By evening sleet was falling. Putting on my sleeter and heavy boots, I hurried over to E's.

"Ducks," I said. E. grasped the situation at once.

"To-morrow morning at 3.30," he replied.

I hastened home, cleaned and packed my hunting outfit, went to bed and it was 3:30. I fell over boots and chairs getting awake, and was hardly into my heavy woolen clothing when E.'s footstep sounded on the walk. We had a breakfast of eggs, bacon and coffee, such as only a mother can prepare. As we started for the barn we agreed that if we didn't get something that day we never would.

In a few minutes we were gliding over the icy pavement bound for the lake.

On arrival we aroused the man in charge of the lake and he provided us with a good, dry boat.

Piling in our blankets, we each took an oar and pulled against a heavy Northwester. A point of land that extends several hundred feet out into the lake was chosen as the objective. Sleigh grass covers this point on the South side. When we landed we pulled the boat up into the grass, then waded out and placed our decoys in the more open space. It was not yet day-

light, so we got into the boat and made ourselves comfortable. Soon we heard that whir so familiar to the duck hunter, and a flock of 30 or 40 teal circled and lit. Four barrels rang out, one duck was picked up. Each of us vowed next time we would do better. We had plenty of chances. Our barrels were kept warm. As daylight appeared it revealed bunches of 5 to 50 each, scattered over the lake. It seemed to me only a short time until we had our share, and I was surprised to find it was 6 o'clock.

We decided to stop for lunch. Then we saw that we had only 4 shells left. Each shell, we said, must bring a duck. Our chance came. Against the Eastern sky I discovered a black streak of varying V and W shapes. It came rapidly nearer and before it seemed possible they were down on us. Four clean shots, in quick succession, and 4 ducks gathered in. To our delight we found them to be those coveted Chesapeake ducks, the canvasback, although Nebraska or Dakota bred. They made a total of 27, with which we were well satisfied. We gathered up the decoys, weighed anchor and pulled for the boat house, feeling that we had had a delightful morning.

J. P. Campbell, Lincoln, Neb.

IT DEPENDS ON THEIR NUMBER.

While I believe in protecting game in general I do not believe in protecting rabbits. They are the greatest pest the orchardist has to fight. A farmer may work 10 years to raise an orchard, only to have the rabbits peel and kill trees. Then if a few farmers organize a hunt and kill 50 or 100 rabbits you call them game hogs and want rabbits protected by law for the pleasure of such fellows as have time to go hunting. I wish I had all the rabbits in this country in a pen. I should like to see how many I could kill in a day. I would put in a full day's work. The man who introduced the Belgian hare into this country should be made responsible for all the damage they will do. See what the rabbit pest has cost Australia and New Zealand. Protect all other game but kill rabbits whenever found.

J. F. Cooper, Half Rock, Mo.

ANSWER.

You, evidently, have not read all, or even half I have said about the hunting of rabbits. I have repeatedly said that while a man who kills 20 rabbits in a day in one State may properly be termed a game hog a man who kills 100, or 1,000 in another State may be a public benefactor. If you will look through the files of RECREATION for 5 years past, you will find at least a dozen articles in which I have expressed such sentiments. In most of the Eastern States rabbits are so scarce that a decent sportsman who hunts all day may consider himself in luck if he gets a dozen shots. Yet there are in these States many low, ignorant men who carry ferrets around in their pockets and drive out of their holes all the rabbits they can find. In many cases these men put a gunny sack over the hole, let the ferret chase the rabbit into this, and then beat the rabbit's brains out with a club. In other cases these butchers watch the exit and when the rabbit comes out, they shoot him to death, without giving him any show to escape. These men are hogs.

On the other hand 100 or 1,000 men may surround a large tract of country in the Southwest where rabbits are so numerous as to be a pest, may drive 5,000 or 10,000 rabbits into a corrall, beat them to death with clubs and be doing the country a real service.

It costs only 2 cents to put a wire cone around each of your fruit trees and thus protect them, not only from rabbits, but from woodchucks as well.—EDITOR.

IS PIGEON SHOOTING SPORT?

Cruelty exists so universally in the world, there is so much suffering in every direction and so much cynical indifference to the torture of animals or men, that it would be foolish to make any special plea for pigeons on the ground of humanity; but I appeal to the ingenuity and avarice of the human beings who shoot.

You crack shots are, of course, a necessary feature of a fine civilization. It is true you are not practicing with any idea of defending your country. Hitting a small bird in the air 99 times out of 100 does not mean a good marksman in war. If you wished to be a useful shooter in modern warfare you would practice shooting at targets the size of a human being 2 miles away.

You shoot at pigeons just as a billiard player practices his game, with no end whatever but amusement and the display of some trifling skill. The particular sport in which you engage is not noble. It does not even demand sobriety from its best experts except at the time of the match.

Stir up your ingenuity, Mr. Crackshot. Can't you invent something that will be more difficult to hit than the swiftest pigeon? You are simply thoughtless and not cruel. It is no pleasure to you every time you snap a cartridge to see the miserable bird turn its breast up in the air as the shot enters its heart. You do not enjoy the sight of a pigeon with broken wing fluttering beyond bounds to be kicked to death by the first ruffian who can get near it. Would you not really enjoy the sport at least as much and save money if

you used a mechanical substitute for the live birds?

We might tell you that in the study of the living pigeons and their development you could, if you would, find a subject far more interesting than any amount of pigeon killing. The development of the original wild pigeon under the marvelous influence of domestication and artificial selection constitutes a most wonderful chapter in animal life and in scientific investigation; but we fear the man especially adapted to killing live birds is perhaps not well adapted to the study of the bird before it is let out of the trap to be murdered.

Just why the S. P. C. A. should permit a man to murder pigeons for his amusement and forbid him to chase a jack rabbit with a greyhound we do not quite understand; but probably they do.—Chicago American.

A GOOD RECORD.

I have secured 76 convictions in the following counties: Vanderburg, Posey, Warrick, Marshall, Gibson, Davies, Kosciusko, Sullivan, Vigo, Vermillion, Parke, Marion, Shelby, Jackson and Lawrence. Twenty-one of these cases were for violations of the game laws and 55 for violations of fish laws. In addition I now have 2 appealed cases pending in the Supreme Court. The defendants in these cases were arrested for having quails in possession during the closed season, and were convicted in the 2 lower courts. They are attacking the constitutionality of the law. One of the defendants testified that he had sold 20,000 dozen quails in the city of Indianapolis in the last 3 years. I have convicted 16 men in various parts of the State for selling and keeping quails at times prohibited by law and have almost put the quail dealers out of business.

I have accomplished a good deal toward doing away with the pot fishermen in the Southwestern part of the State, and along Wabash and White rivers. I have had 55 of them heavily fined and have burned 3,855 feet of nets and seines. Violations of the fish law are much rarer than before and hook and line fishing is better than at any time in 10 years. I am now making a fight on the strawboard people, who are emptying their poisonous refuse into the streams. Madison county farmers told me the other day that they saw 2 carloads of dead fish, that had been killed by strawboard refuse at a mill down near Anderson. We will try to have that stopped.

Much additional legislation is needed for the proper protection of fish and game. Fishing and hunting clubs should correspond with one another, ascertain what will meet with general approval, and then set to work to get it. We will keep up a continual warfare on illegal hunters and fishermen and hope to do more for the protection of game this year than last. We have been charged with the enforcement of the game laws only since the meeting of the last Legislature; prior to that time we only had the fish laws to look after.

E. E. Earl, Dep'y Comr. Fish and Game,
Indianapolis, Ind.

POWELL'S BEAR STORY.

"A Racket in the Rockies," is all right and so is its author, Mr. Vermilya, inasmuch as he did not intend to load anybody; but it must be conceded that A. M. Powell is a record breaker with a pistol, if his Alaskan story is true. RECREATION readers are not all boys; many have hunted bear and deer in the Rockies and some have been in Alaska. Three grizzlies and a caribou at 200 yards with a 6-shooter is, to say the least, unusual. Bear No. 1 escaped being shot with a camera and fell a victim to Mr. Powell's revolver. Mr. P. says that bear was dressed and hung up just as darkness set in, and that happened in July, when one can see to read all night in Alaska.

Mr. Powell's next victim was a caribou, running, at 200 yards; a remarkable shot, surely, with a pistol. The same afternoon a huge grizzly was shot at 145 yards, with the same weapon, the bear charging and nearly getting the man. This is the first case known of a wounded bear charging at that distance. Some 3 weeks later Mr. P. had another close shave but finally got his bear. It dressed 800 pounds, which would make its live weight about 1,200. There is no authentic record of a bear of that preposterous weight.

It is much to be regretted that Mr. Powell did not explain just how he managed to preserve all that meat from spoiling, during 3 weeks of hot July weather, and how he packed a ton of meat and his camp duffle on 6 horses.

I once knew a man named Burt. He said he could break a swinging bottle at 200 yards with a rifle every time. It transpired that he couldn't hit a barrel with a shot gun. We meet such fellows occasionally, but it is seldom anyone puts enough faith in their yarns to publish them.

G. H. Tremper, Helena, Mont.

ANSWER.

I sometimes print a statement in RECREATION that I know is not true, just to show how many kinds of a liar a man can be on paper. Moreover it is fun to see the other fellows rip him up the back in subsequent issues.—EDITOR.

HUNTERS WHO ARE SHOT AT SHOULD SHOOT BACK.

I appreciate your efforts for the preservation of game, as well as the many other valuable qualities of your magazine. Along your line of work comes also the preservation of human life, and, in some cases at least, it seems impossible to preserve both the game and the hunters. Under existing circumstances the sooner the deer in the Adirondacks are killed off, or the fool hunters squelched, the better. No man, woman or child who ventures into those hills when the deer-hunting season is on, whether wearing red, blue or gray sweater, or no clothes at all, is safe.

Some time ago I wrote Dr. Webb, who owns a large tract in the Adirondacks, and suggested that he post his forests with permanent signs, about as follows: "Before you shoot know you are not shooting at a human being."

If all individual owners in the State would so board their forests, the number of deaths caused by careless shooters might be largely decreased.

Will you stir up this matter in your characteristic, vigorous manner and receive the blessing of every lover of the woods?

The fall is the most delightful season in the hills, but it is marred by this constant danger. Many people stay at home who would like to enjoy the benefits of the forest at that season. You can accomplish a great good if you will devote half the energy you do to game hogs, whom we all detest.

Why not open a life-saving department in RECREATION? Let us hear from others on this subject.

F. P. H., Syracuse, N. Y.

One good way to check the killing of hunters would be to hunt down and kill every man who shoots, or shoots at, a human being, under the impression that he is a deer. A man who shoots without knowing what he is shooting at is no better than a murderer, and should be as summarily dealt with.—EDITOR.

THE SEVENTH CAVALRY AND THE YELLOWSTONE PARK.

Knowing that RECREATION is ever ready to champion the cause of game protection, I beg it to protest against the removal of D and H troops, 7th Cavalry, from their present station in Yellowstone park. An order was recently issued relieving them from police duty there. The game, especially buffalo and beaver, will surely suffer if a change is made. It takes a detail at least 3 years to learn the habits and haunts of the game and the boundaries of the park, and while they are learning the ropes poachers will have everything their own way. The attention of the War Department should be called to this matter at once. The 7th Cavalry has done more for the protection of the park than any other troops that have been here.

There are 3 scouts in the park—Morrison, Whittaker and Burgess. Morrison can not be relied on; the poachers themselves say they are safe when they see him coming; but if they see one of the other scouts they have to run. The poachers have it in for Whittaker; he is too strict to suit them. Last November he caught 2 men shooting at antelope near this place. It was too dark for fine work, but the men told me he sent bullets whistling mighty close to their heads. Though he is no friend of mine, he is the best man in the park. He has arrested more people since he has been on the force than all the others put together. He can be seen every morning patrolling the North line of the park long before daybreak. Sergeant Wall and Scout Burgess are 2 other men who put the fear of God in the poachers.

A. B. C., Gardiner, Mont.

A MODEST CAMP.

West Palm Beach, Fla.

Editor RECREATION:

"How to Build a Camp," in August RECREATION, page 113, was an inspiration to me and filled a long felt want. I went right over in the Everglades, where land can still be had for 2,000 plunks an acre, and started 3 places on the lines indicated, one for my private use, one for you, Old Boy, and one for some mutual friend. My house stands in the center of the trio. To enable me to distinguish it easily, should I ever come home too full of ozone, I sent to Colorado for a few carloads of rose quartz, well filled with gold. With this I expect to make a sort of inlay, using coquina rock as a cement.

The other 2 houses will be inlaid in much the same way, using pyrites of iron for the one and moss agates for the other. To preserve the harmony of the whole, there will be, immediately over the entrance of each house, a ruby about the size of an ordinary water bucket. I intended to use a larger stone, but found them hard to get without flaws, or money.

To prevent the blooming tourist from annoying us I went some 250 miles into the Glades. Our own transportation will be made by means of compressed air. Recent experiments have shown it possible to traverse the distance in 8 minutes, landing in a bathtub of Florida water.

We will use the wireless telegraph, the photo-telephone, and stored solar rays for lighting. I expect great things from the photo-telephone. By a system of mirrors

I expect to be brought into direct communication with all the game. There are a few other improvements I will tell you about when you come down.

J. E. Miller.

GAME NOTES.

Will you kindly send me a recipe to keep the hair from falling from a mounted caribou head? It was brought from Circle City, Alaska, and the hide was not in good condition.

Geo. A. Auchors, Washington, Pa.

ANSWER

Your caribou head is undoubtedly infested with moths, which are eating off the hair at the roots. To stop this have a druggist make a solution of one quart of wood alcohol, containing corrosive sublimate powder, in the proportions of one to 1,000. Turn the head upside down, and carefully pour the liquid into the hair, so it will run down to the roots at every part. When it evaporates, it will leave at the roots of the hair a deposit of the corrosive sublimate, which will be death to all moths. No time should be lost in doing this.—EDITOR.

The prospect for birds here is excellent, not only in this immediate locality, but in other parts of Virginia and North Carolina from which I have received reliable advices. Turkeys are plentiful in this section, but I believe are fast disappearing elsewhere. The nesting time here was most favorable and the coveys are numerous now, many being large birds, while others have not yet left the ground. My brother from Winston was here for a fortnight, and he is a veteran sportsman of—well, an uncertain number of seasons; he being still a bachelor, it would not do to be too definite—and he says he has never known a better prospect for birds and turkeys here, and for birds and deer up at his place, Hyco, in Caswell county, North Carolina.

Jennie P. Buford, Lawrenceville, Va.

I have a pair of elk horns larger than those owned by Mr. Darling and described in March RECREATION. Mine measure from tip to tip and across the skull 9 feet 3½ inches. If the tape is made to closely follow the outline of the skull between the horns, it adds 1¼ to 1½ inches to above measurement. There are 10 prongs; the largest is 17½ inches long. The elk was shot 17 or 18 years ago in the Musselshell river, Montana. The points of the horns, unlike those shown in the photo in March RECREATION, curve inward. Is the variation common? If not which is the normal form? Should like to know the weight of the horns owned by Mr. Darling; also how much of the skull remains attached.

Dr. B. M. Freed, Sharon, Pa.

Wm. Vermillion, our popular implement man, returned Thursday night from a 4-days' hunt in Clay county. A. K. Montgomery, a traveling man, was with him. So plentiful was game that in 4 days they killed 450 quails. The abundance of quails down there is accounted for on the theory that Clay county people are politicians and not hunters.—Taylorville, Ill., paper.

In reply to my letter Wm. Vermillion admits that the above statement is correct—or "corect," as he puts it. Therefore I congratulate the people of Clay county. Two sportsmen sometimes kill 80 quails in 4 days; and poultry butchers often kill 450 fowls in the same time, but nobody envies them the job and they seldom brag about it. —EDITOR.

H. V. Shelley, of Ridgeburg, N. Y., says all boys under 18 who wish to use guns should give bonds to county game wardens. I do not see why. I am a boy and have a rifle and do not need to be put under bond, for I take RECREATION and follow its teachings. My friends do not need to be put under bonds, either. There may be a few bad boys, but why not send them RECREATION? They would then be all right. It is not boys who thin out the game; it is pot hunters. What little we kill is usually killed with rifles and not with shot guns that cover all the territory in sight. Lee B. Chase, Chicago, Ill.

I have had much pleasure in reading the interesting article in July RECREATION entitled, "Twenty-one Grizzlies in Sight." It is a pity Dr. Penfield's professional obligations compelled him to leave his comrades before he had any sport or amusement. I have yet to hear of a doctor who did not score if within the limits of average human skill, courage or endurance. I hope to hear that the doctor can have a longer vacation the coming season I am certain if he has lost a grizzly and finds him he will take him to New York and toast his slippered toes on his furry pelt many a cold night after a hard day's work.

J. A. Sampsell, M.D., New Orleans, La.

The first important step in game protection is a gun license. There are youngsters of 10 to 18 years seen here daily in the woods who shoot every kind of bird they find. I have seen them shoot birds on the nest. A gun license of a few dollars would

stop all this. If a gun license cost $5 a year I would not consider it a cent too much. The man who would object is no sportsman. The open season for rabbits should be the month of November. Now they are hunted from August to February. A short rabbit season would save thousands of quails.

Fred N. Leidolf, Fort Wayne, Ind.

I thoroughly enjoy RECREATION. I am an ardent lover of animals and birds, especially the latter, and I have now, in my grounds in this city, an aviary containing what is said to be the largest private collection in the United States. Besides many small birds, I have 7 varieties of pheasants and 5 varieties of quails. My greatest pleasure is in the rearing of the young. I always watch RECREATION closely to see if I can glean any new ideas for my hobby. I never read a magazine I liked so well. Success to it.

J. W. Sefton, San Diego, Cal.

Gee whiz! That Sharpsburg druggist, whose photo is shown in July, 1902, RECREATION, page 32, has a hard-looking mug. Are all druggists like him? I wonder if his neighbors have to keep their hen houses locked? Too bad nice dogs have to associate with such things. He must be a trust man; wants it all. You do the swine an injustice by your comparison. They have some right among men; this fellow has none. Wonder what kind of pills he sells?

W. M. B., Magdalena, N. M.

In a recent number of RECREATION, W. L. Winegar jumps on Guide Hammond, of Missoula, Montana. It happens I was in the Clear River country when Hammond was there, and, by the way, he is not from Missoula, but from Hamilton. To my knowledge the Hammond outfit shot but one head of game to the man, or 6 in all. Yet Winegar tries to load them with 26 elk.

M. P. Dunham, Ovondo, Mont.

In '64 I hunted deer and bear in the vicinity of Rum river, Minn. Passing one day through a grove of burr oaks I saw a coon in the crotch of a tree some 20 feet from the ground. I put a ball through his head, and carrying him to the cabin found he weighed just 30 pounds. Can any of your numerous readers beat this for weight?

J. Dimon, Hammondsport, N. Y.

Will you ask your readers to please give some preparation that will remove the odor from skunk fur?

C. J. Boyle, San Rafael, Cal.

ANSWER.

There is no preparation that will remove the odor of skunk so effectually that a damp day or a warm place will not make it manifest.—EDITOR.

C. Van Antwerp, E. L. Teeple, Fred Aldrich and Art. Hubbard, of Tecumseh, Mich., with 3 guns and 2 ferrets killed 27 bunnies Sunday, January 13. They are exceedingly proud of the record. I wish they could be fitted out with rings in their snouts as is done with other vicious hogs.

Legitimate Hunter, Tecumseh, Mich.

Game is killed here at all seasons, regardless of law, by both white men and Indians. Deer and antelope are killed for their hides alone. I saw last fall, in a deserted Indian camp, 14 carcases of deer from which but little meat had been cut.

Omer Franks, Fair View, N. M.

I have been reading RECREATION a long time and find much valuable information in it. Am not so big a game hog as I was. Have joined the L. A. S. and am doing all I can to stop the work of the hogs.

H. G. Edwards, Hopkinsville, Ky.

The law of Kansas for the protection of birds is so stringent and so easily enforced that there is no just reason on the part of anyone for complaint against pot hunters or other violaters of the law.—The Commoner, Wichita, Kans.

You are entitled to the time, talents and support of all decent men for what you are doing, not only for the game, but for the men who pursue it. You are not only saving game, you are making men.

V. W. B. Hedgepeth, Goshen, Ind.

Quails, chickens, ducks and geese are becoming scarce in Kansas. We have too many market hunters, and they all work overtime.

Dr. J. M. Coulter, Minneapolis, Kan.

We have many quails here, some chickens and plenty of squirrels.

C. S. Cunningham, Flora, Ill.

Mamma (explaining spiritual truths to her little boy)—Tommy, when you die you leave your body behind; only your soul goes to heaven.

Tommy—Well, mamma, what will I button my pants to?—Exchange.

FISH AND FISHING.

ALMANAC FOR SALT WATER FISHERMEN.

The following will be found accurate and valuable for the vicinity of New York City:

Kingfish—Barb, Sea-Mink, Whiting. June to September. Haunts: The surf and deep channels of strong tide streams. Baits: Blood worms, shedder crabs and beach crustaceans. Time and tide: Flood, early morning.

Plaice—Fluke, Turbot, Flounder. May 15 to November 30. Haunts: The surf, mouth of tidal streams. Baits: Shedder crabs, killi-fish, sand laut. Time and tide: Ebb, daytime exclusively.

Spanish mackerel—Haunts: The open sea, July to September. Baits: Menhaden, trolling—metal and cedar squids.

Striped Bass—Rock Fish, Green Head. April to November. Haunts: The surf, bays, estuaries and tidal streams. Baits: Blood worms, shedder crabs, Calico crabs, small eels, menhaden. Time and tide. Night, half flood to flood, to half ebb.

The Drums, Red and Black. June to November. Haunts: The surf and mouths of large bays. Bait: Skinner crab. Time and tide: Day, flood.

Blackfish—Tautog, April to November. Haunts: Surf, vicinity of piling and old wrecks in bays. Baits: Sand worm, blood worm, shedder crabs, clams. Time and tide: Daytime, flood.

Lafayette—Spot, Goody, Cape May Goody. August to October. Haunts: Channels of tidal streams. Baits: Shedder crabs, sand worms, clams. Time and Tide: Day and night flood.

Croker—July to October. Haunts: Deep channels of bays. Baits: Shedder crabs, mussels. Time and tide: Day, flood.

Snapper—Young of Blue Fish. August to November. Haunts: Rivers and all tide ways. Baits: Spearing and menhaden; trolling pearl squid. Time and tide: Day, all tides.

Sheepshead—June to October Haunts: Surf and bays, vicinity of old wrecks. Baits: Clams, mussels, shedder crabs. Time and tide: Day, flood only.

New England Whiting—Winter Weak-fish, Frost-fish. November to May. Haunts: The surf. Baits: Sand laut, spearing. Time and tide: Night, flood.

Hake—Ling. October to June. Haunts: Open sea surf, large bays. Baits: Clams, mussels, fish. Time and tide: Day and night, flood.

Weak-fish—Squeteague, Squit. June to October. Haunts: Surf, all tideways. Baits: Shedder crabs, surf mullet, menhaden, ledge mussels, sand laut, shrimp. Time and tide: Day and night, flood preferred.

Blue Fish—Horse Mackerel. June to November 1st. Haunts: Surf, open sea and large bays. Baits: Menhaden, surf mullet and trolling squid. Time and tide: Daytime; not affected by tides.

BROWN TROUT.

THEODORE GORDON.

For some years after its introduction into many of our waters, a strong prejudice existed against the European trout (*Salmo fario*), commonly known as the brown trout. It was said that it destroyed the native trout; that it was not equal to it as a table fish or as affording sport for the angler; that it was dull, stupid and lazy, and always a cannibal after reaching a certain size. Lately, however, I have heard but few complaints, and I know men who admire this fish and dispute all assertions to its discredit. They claim that it is a free riser to the fly, less shy than the brook trout and that it gives great sport when hooked; also that if a brown and a brook trout of the same size are cooked and served in the same dish, an epicure, if blindfolded, can not detect any appreciable difference in their flesh.

It would be interesting to hear from various parts of the country where these foreigners have become numerous. They are now found as far West as Colorado, in Michigan and in many other States. In New York they are abundant and have certainly taken the place formerly occupied by the brook trout in some of our brooks. In other waters the 2 species exist together, but I doubt if this state of affairs can be continued, as the brown trout grows much more rapidly than the native fish, and where food is plentiful attains great size. It can endure a higher temperature than any of our native trout except the rainbow (*Iridius*), and I know of good spring fishing in rivers where 20 years ago no trout were found, except in the upper and colder portions. Ten or 15 years ago a pound trout was a large fish in many of our best streams. Since the introduction of brown trout 2 pounders have become common and much larger fish are taken. Trout up to 5 pounds have been caught with fly, and fish up to 8 or 9 pounds reported as taken with bait, though I think most of those big fish have been unfairly dealt with. I saw one of 6 pounds with a small hole through its shoulder, and I afterward heard it had been speared with a pitchfork. Big fish are hooked every season with small flies, but usually escape, owing to the light tackle employed by expert anglers. The probability or chance of striking one of these Jumbos adds decidedly to the interest of fly fishing; but a 4-ounce rod and a gossamer gut line put the angler at a great disadvantage. He hooks his fish and plays it, perhaps, half a mile down stream. The fish stops now and then for rest or recreation, maybe, close enough to stare his would-be captor out of countenance. Finally the gut is worn through by friction, cut by the sharp teeth or pulled apart, as one friend says, and fish and man part company, greatly to the disgust of the latter, who is probably trembling with excitement. This is not a fancy sketch.

With modern fish culture there is no great difficulty in keeping up a good stock of trout in free water, though this is be-

coming more limited every year. I have had better fishing of recent years in neighboring streams than I ever had in my youth. For this I thank the State of New York, whose well managed hatcheries have stocked public waters with multitudes of fry and even yearlings. Anyone who has watched, through a series of years, the rapid increase of a foreign breed of trout, in any stream, from fry only, will never doubt the efficacy of stocking even with fry alone. With the improved methods now in use, it is possible to release the fry much later in the season than formerly, when the streams have reached their normal level and when, owing to the higher temperature, there is far more food for the young fish, insects, larvæ, etc. The growth rate is entirely governed by the supply of food and that seems to be abundant in all the brooks of any size which I have investigated. I hear constantly of fine fish being taken from water that has been entirely unproductive for many years, and I am inclined to believe it pays best, on the whole, to stock with the brown trout, because of its rapid increase in size and numbers. It is a good fish for the table. I advise those who complain of the coarseness of the large brown trout to have them boiled and served as a salmon would be. If in good condition, even large brown trout are excellent eating and are not bad when served cold with mayonnaise dressing.

Brown trout rise well, but require a fair variety of flies. Color and size must be attended to, though sometimes these trout will rise at almost anything. I have taken some large fish, one 3-pounder, with the following pattern: Tay, gold tinsel; tail, grey mallard; body, pale yellow wool; wings, grey mallard; legs, light brown or red hackle. In fact, much the same fly as the old reliable Professor, but the color of the body can not be got with silk, which changes more or less when wet. Natural flies of this color may be seen in May and June, as beautiful as the celebrated English May fly.

I am told that on the other side of the Atlantic anglers, in parting, instead of wishing each other good luck, say "Tight lines." I have seen this expression in print, and it has always reminded me of occasions when I have had tight lines indeed, but they were forced on me by getting fast in old stumps or logs, or catching my flies high in some sturdy tree. Many flies and beautifully fine leaders have been left to dangle hopelessly in the summer air, and remembering the effects of such misfortunes on the tempers of the most amiable men, I will stick to the good old parting words, "Good luck," leaving "Tight lines," to our cousins of the "fast-anchored isle."

ANOTHER BUNCH OF MICHIGAN SWINE.

The following clipping from a Michigan paper was sent me by a subscriber:

C. J. Wickstrom and C. O. Jackola, of Calumet, brought back from Lac La Belle, in Keweenaw county, 200 pounds of fish.

I wrote Wickstrom and Jackola as follows:

I am informed that you and a friend caught 200 pounds of fish on a recent trip. Will you kindly tell me if this report is true, and if so give full particulars.

In due time I received the following replies:

It is true that my friend, C. O. Jackola, J.P., and I went into the woods for a 3 days' fishing trip the first of this month. We drove down to Lac La Belle and made 3 trips on the lake. We fished with hook and line, used worms for bait and in all we caught 200 pounds of black bass, pickerel and perch.

C. J. Wickstrom, Calumet, Mich.

The information you have received is not exaggerated. C. J. Wickstrom and I made a fishing trip to Lac La Belle, in Keweenaw county, about 30 miles North of Calumet, and in 3 trips to the lake we caught 200 pounds of pickerel, perch and bass with hook and line. This, however, is not an uncommon occurrence. We have caught 600 pounds in 4 successive hauls from the same lake, but at that time we were 4 men in the party and for 10 years past there had been little fishing done in that lake.

Charles O. Jackola, Calumet, Mich.

There are several queer statements in Jackola's letter. He says: "We have caught 600 pounds in 4 successive hauls from the same lake." This sounds as if these men had been drawing a seine, or possibly he means they hauled the fish away from the lake in a hand wagon. Or it may mean that they simply put in their time hauling the fish into the boat with hand lines, which is more probable. This is the kind of tackle such measly bristlebacks as Jackola and Wickstrom generally use. Jackola intimates that this recent great catch was possible because there had been little fishing done in the lake during the past 10 years. If these same shoats had been going to that lake every year, they certainly could not have caught so many fish this year as they did. I wish someone would invent a torpedo that could be set and attached to wires leading around lakes and along streams that are well stocked with fish and that would explode whenever touched by a fish hog. Of course such a machine would have to be equipped with something like human intelligence, so it

would not blow up decent sportsmen. Will not Mr. Edison turn his attention to this great need of humanity and see what he can do for us?—EDITOR.

A MINNEAPOLIS MUSKALONGE MURDERER.

Enclosed I send you a printed slip which has been distributed around the streets of Minneapolis by one William Hutchins, who poses as the Secretary of the Muskalonge Fishing Club. As you will see by his own statement, he is a confirmed fish hog..

Clinton F. McKusick, Minneapolis, Minn.

The text of the circular is as follows:

THE MUSKALONGE FISHING CLUB.
(Limited.)

I respectfully call your attention to the above club, also to the fact that you can get the best kind of fishing at this resort that is to be found in fresh water. Muskalonges weighing up to 30 and 40 and some at 60 pounds. As you perhaps know, muskalonge fishing is allowed by law at any time. I have express receipts to show that I shipped 28 barrels, or over 4,600 pounds, of muskalonge caught by myself and brother only in 4 days. Wall-eyed pike, pickerel, perch, whitefish, lake trout and large, toothsome bass are also there in unlimited numbers, as I can vouch for. Good hotel accommodations for club members. Good cooking and plenty of it.

Wm. Hutchins, Secretary.

I wrote Mr. Hutchins, asking if the statement in his circular was accurate and he replied:

What you have been told in regard to myself and brother catching 4,600 pounds of muskalonge is true. I can prove that there are more muskalonge at this resort than can be found in any other body of water in this country, for the reason that the outlet of this lake is closed 10 months of the year. The inlet is underground springs. The lake is 25 miles long and 18 to 24 miles wide, all sand and gravel beach. I had over 1,000 pounds of muskalonge on exhibition in this city last summer. That is the way I advertise. I show the goods.

W. H. Hutchins, Minneapolis, Minn.

I have heard of fish hogs before, but you and your brother certainly wear the longest bristles and the longest snouts of any of them. Mille Lacs certainly must be well stocked with muskalonge, but if such dirty brutes as you are allowed to root in it unrestrained, it is safe to assume there will not be a dozen fish left in 2 years. If I were in business in Minneapolis or anywhere else, and you should come to me with a request to be allowed to exhibit in my window 1,000 pounds of muskalonge, taken at one catch, I would kick you down the street as far and as long as I could find piece of you.—EDITOR.

SOME MAINE FISHING.

June 13 Mr. A. L. Bacon and I drove 17 miles East of Bangor to Flood's pond. It is in a hilly country in the town of Otis. Few ponds in the State afford greater sport for the angler than Flood's. It is well supplied with squaretail trout, and a species that is known about here as the silvertail. This is not so stocky a fish as the regular squaretail, being more like the togue. Flood's is one of the few ponds in the country where these silvertail trout are found. Every year the United States Fish Commission sends a man there to get trout and spawn for stocking lakes and ponds.

While at Flood's pond we caught a great many fish and were well pleased with our trip. The day before we started home was bright and sunny. We fished every way that is known to the angler, and were rowing down the pond without a single fish, feeling rather blue. I was rowing through a part of the pond called the narrows and Bacon was trolling, when suddenly his reel began to sing. He thought his line was caught on the bottom. I rowed back to the place where the end of the line seemed to be caught. Meanwhile Bacon was standing up, reeling in the line as fast as we moved backward. Suddenly the line tightened and began to move slowly out into the deeper water of the lake. Bacon shouted, "I've got a whale!" and then he settled down in true sportsman's style with a determination to land that fish. We rowed around, following it as best we could. Finally we got it up to the boat so we could reach it with the landing net and take it in. It weighed 3 pounds and 7 ounces and was the largest silvertail taken out of the pond during the season.

That is also a great game country. While there we saw 21 deer and a great many ruffed grouse.

B. R. Berry, Bangor, Me.

THE ROOTERS STILL ROOT.

Herewith I enclose an account of the fishing contest of 1902.

John Raines, 3rd, Canandaigua, N. Y.

The people of Naples were regaled with a great show of the finny tribe as a result of the fishing contest of the Naples Association. The display compared well with the best of previous contests. The scoring was by weight with a varying grade of points to the pound, according to the grade of the fish. Trout, 25 points to the pound; pike 15, whitefish 15, pickerel 8, perch and sunfish 8.

There were 21 contestants, as follows, with their respective scores:

Captain, D. Farr	216	Capt. F. Thompson.	60
S. R. Sutton	56	G. F. Beach	227
Elmer Hinckley	188	J. Saunders	184
Mark Folts	384	B. N. Hinckley	323
J. H. Tozer	101	C. Fox	112
Dr. Barringer	000	R. Meyer	212
E. Haynes	197	G. W. Case	124
W. H. Tobey	124	Grant Lee	00
John C. Bolles	176	S. H. Howse	44
George Gillett	72	S. A. Story	00
D. P. Wood ½	58	D. P. Wood ½	58
	1572		1429

This gave the contest to Farr and his men by 143 points. A dinner was served at the club house at the expense of the other fellows.

—Naples (N. Y.) Paper.

Thus we see that the swine are still at large up the State. If there are any decent sportsmen in Naples why don't they round up these brutes and put them in the pound? —EDITOR.

MORE PENNSYLVANIA ROOTERS.

Herewith I enclose clipping from the Lehigh Register and Patriot, of Allentown, Pa. I suggest that you enter the names of the parties in your fish hog catalogue, which I understand you are getting out.

C. W. Rice, Perth Amboy, N. J.

L. A. Gardner, George Selbert and Charles Arner, of Easton, who returned Thursday morning from a fishing trip to Monroe county, caught 242 trout.

I wrote these men for confirmation of the statement and received the following reply:

Two friends and I fished on the 15th and 16th of April, in the East Brodhead, Stony run, Mill creek and Buch Hill and we caught our limit, 150 trout.

L. A. Gardner, Easton, Pa.

There are dozens of decent sportsmen in your State no one of whom would be guilty of catching that number of fish in a day now, even though the law does allow them to take 50 each.—EDITOR.

A GOOD FIGHTING WARDEN.

Our local warden, Mr. Joe Kline, has had 14 convictions out of 17 arrests. One conviction was for destroying a robin's nest, $25 fine, and one was for gill netting in one of our small lakes. That man was fined $200 and costs, making a total of $256. Mr. Kline is doing good work and needs encouragement. The parties arrested always put up a strong, hot fight, but Mr. Kline will win out. We need protection here for our fishes, as our lakes are small. We have black bass and bluegills and if they are given the right kind of protection the fishing will again be good in a few years. Fishing through the ice has almost depleted the stock of bass, as 9 out of 10 fish caught here in that way are females, and large ones at that. I have seen bass taken through the ice that would weigh over 4 pounds and they were full of spawn.

E. R., Ravenna, Ohio.

NIBBLES.

Every winter for the last 7 years it has been my custom to spend 2 weeks to 3 months in Florida, and much of that time has been spent fishing. I have never fished in the inland waters of Florida; but I have noticed every succeeding winter a progressive deterioration of the salt water fishing at the points I have visited, principally Indian river and Sarasota bay, until now legitimate sport is nearly ruined. The cause is apparent, namely, promiscuous and unrestrained netting at all seasons of the year, and the killing of all fish, great and small, by stop nets and seines. The people of Florida should wake up and procure and enforce judicious legislation on this subject, or soon there will be no fish and an important source of revenue will be lost. M. D. Ewell, M.D., Chicago, Ill.

One Paul Steinberg, of Fountain City, Wis., was recently arrested by Chief of Police Smith and Marshall Ruediger, of that place, for fishing with a seine in the Mississippi river in violation of the Wisconsin State law. Steinberg was caught in the act, was fined $50, and his seine, his boat and his new Winchester rifle were confiscated. He probably took the gun with him to shoot officers, but it would seem that his courage failed him when Smith and Ruediger descended on him. Steinberg was unable to pay his fine and went to jail to serve it out. He will have plenty of time there to think it over.

Last spring my brother, Dr. L. G. Verrill, and I, while on a fishing trip, took an albino pickerel 16 inches long. In shape he was like any pickerel, but his scales were pure white, with fins of a pink shade. He was taken at Snows Falls, Me. We also caught several ordinary pickerel. We saw the albino before he struck for the hook, which he missed the first time, but the second cast brought him. He was fierce and handled himself as quickly and actively as the best of them. Do you or the readers of RECREATION know any reason for such a freak? We are having it mounted.

Alton J. Verrill, Oxford, Me.

Kent, Ohio—The jury in the case of John Hanselmann, the Akron man charged with gill netting at Stratton's lake, returned a verdict of guilty. Justice Johnson fined the prisoner $200 and costs.—Cleveland (Ohio) Paper.

GUNS AND AMMUNITION.

Anybody can keep shooting all day, but it takes a gentleman to quit when he gets enough.

THOUGHTS REGARDING MARLIN.

I do not see how anyone who claims to be a sportsman can get along without your magazine. It is worth more than the price just to read about those Marlins. Their idea of bringing suit against you was as bad as the action of their rifles. You can prove everything you have published. I have had some experience with Marlin rifles myself, and I would rather go hunting with a club than with a Marlin. I should have less trouble and more game. I was at a shooting match the other day where there were several Marlins. Almost every time the men got ready to shoot they had to bother with that same old complaint, the action. I won all the turkeys.

I do not understand why the Colt Arms Co. does not advertise in RECREATION. The Winchester rifle is all right, but I count the Marlin worthless.

Arthur C. James, Anita, Ia.

I saw in October RECREATION some complaints about the Marlin rifle and am glad sportsmen are finding out the weak points of that weapon. In '95 I was in the Black Hills and was proud of my 38-55 Marlin until I tried to bag an antelope. The first shell from the magazine worked all right; the second did not, and I lost my game. I sold that gun and bought a Winchester, which has proved reliable at all times. The Peters cartridges are inferior to any other ammunition I ever used. I bought 200 32-caliber revolver cartridges and, as I can prove by 5 friends, only 64 out of the lot would explode in the revolver used, which was a standard 32-20 Colt. I snapped some of those cartridges as many as 15 times. U. M. C. ammunition is excellent and little fault can be found with it. M. A. G., San Diego, Cal.

I am an ardent admirer of RECREATION and of the way it handles the troubles among guns, game and hogs. I note the trouble over the Marlin. The 22 caliber is defective beyond any doubt. I have a gallery, and my manager, Mr. Cheatwood, is an expert with guns, but he can not keep the Marlin from clogging with empty shells. If the gun is held in a vertical position the 22 short will tip back and the ball will catch against the cap and will not load. I have worked with guns, in making and repairing them, for 18 years, and I can not make the Marlin work, though it is a good shooting gun and attractive in shape. Am compelled to take the Marlins out of the gallery.

J. W. Puterbaugh, San Jose, Cal.

One of my neighbors intended buying a Marlin repeating shot gun and sent for circulars. They came, also a little leaflet containing unpleasant remarks regarding yourself and RECREATION. The boy had his mind set on a Marlin, but on reading the leaflet he said, "I don't want their gun, if that is the sort of people they are," and immediately sent his order to another house. Now, if that will influence a lad of 14 years how much more will it prejudice older and more experienced persons. Good for the kid! Wish a few more would do the same thing. When they jump on G. O. S. and his work they have tackled the wrong proposition.

Fred Whittle, Northfield, Minn.

I notice the controversy between yourself and Mr. Marlin, of the Marlin Fire Arms Company. In my opinion Mr. Marlin would better "go 'way back and sit down," if he does not wish to have the hearty hate of all true sportsmen. He has chosen the wrong course to further the sale of his guns. I had the misfortune to own a Marlin rifle once, and they are not worth the powder to blow them to a warmer climate. If Marlin wishes any verification from this quarter as to the worthlessness of his rifles I shall be pleased to pay postage both ways.

Jno. R. Hamilton, Monango, N. D.

About that Marlin gun: I saw George last night. He said to tell you his first one did fairly well, but not so good as my Winchester. His Marlin failed to extract all shells.

He raffled it off, and bought another of the same make that cost him $34. It was an elegantly finished gun, but failed to extract shells; in fact, it was a complete failure.

I have never had a bit of trouble with my Winchester. It is a perfect quail gun, being a cylinder bore.

Clarence B. Muchmore, Charleston, Ill.

Your correspondents who pound the Marlin rifle doubtless have good reason for doing so. A neighbor named Puton bought a Marlin repeater for $12. After having it 3 days he sold it to me for $2.50. I tried the gun, and finding it balked half the time, sold it for $1.50. Don't know what my customer will do with it. If he sells it here it will be to the junk man.

H. J. Davison, Charlton Depot, Mass.

AGREE WITH MR. RUTHERFORD.

I agree with F. Q. Rutherford, in May RECREATION, that the Savage should handle the standard army cartridge, and no other in the same gun, to give it stand-

ing with riflemen who know that a gun that will shoot many cartridges can not be depended on to shoot any one of them reliably. It lacks character, like a jack-of-all-trades, and nobody has faith in it. If one wishes a gun merely to play with, it may serve; but a gun that does not require extended experimentation and constant alteration of sights to suit different loads is the gun that the practical rifleman wants, and for tnat reason he turns to the Winchester, model 1895; of the reliability and uniform shooting of which, his mind is satisfied *a priori*. Even the Savage Company, itself, acknowledges its inability to sight the guns at the factory for accuracy before putting them on the market. The reason they give is, candidly, that if they sighted a gun for one cartridge it would not suit the other cartridges it takes, and they therefore leave it to the purchaser to settle the vexed question for himself, if he can. No Winchester rifle is ever put on the market without first being sighted and shot, for accuracy. When you buy it you buy it ready for use and do not have to experiment for months to find out what it will do, and perhaps never learn. I have not bought a Savage for above reasons and I know many people of similar views. I can readily conceive, however, that if the gun were made to take the army 30-40, and that alone, and sighted for accuracy for that cartridge and guaranteed to shoot it accurately, I should promptly buy one. We all know that the rifling to shoot best a powerful cartridge, must have a certain definite pitch and that this pitch will not perfectly suit a smaller charge; therefore when it is claimed that any one gun will shoot large and small charges equally well, we know that it will not shoot any charge in the best manner possible, and we suspect an effort at compromise in the matter of twist that should cause the gun to rate as a second class shooter. As every well informed rifleman will be content with nothing less than the best shooter obtainable and will tolerate nothing mediocre, the Savage will not rate as first choice until one gun is made, and exclusively adapted, for one cartridge, be it powerful or weak. I should like a Savage to shoot the 30-40 cartridge as accurately as the Winchester, model 1895, and should also like one to shoot the 6 mm. navy cartridge as accurately as the Lee straight pull repeater. Each gun named has its fixed and definite value. With a Savage, shooting the 6 mm., or 23 caliber, navy cartridge, Lyman sights could be used; which is impracticable on the model now made by the Winchester Company for that cartridge. This would make the Savage the ideal long range, flat trajectory rifle; in my judgment the best rifle in the world, military or sporting.

John F. Keenan, M. D., Washington, D. C.

I see in May RECREATION, a letter from T. Q. Rutherford, Chihuahua, Mexico, "A Suggestion for Savage." I am using a 30-30 Savage rifle for deer shooting, but I am of the same opinion as Mr. Rutherford, that a 30-40, made by the Savage people, would be just what is wanted by a large majority of the hunters in this section. I am ready to buy one as soon as they are put on the market. Should like to hear what the Savage people say.

J. Chester, Sarnia, Ont.

You should read what the Savage Arms Company says on this subject in August RECREATION, page 132.

WINCHESTER AND REMINGTON-LEE.

In May RECREATION C. R. Benjamin asks about the good points of the '95 model, Winchester 30-40, and how it compares with the 32-40 as a deer and bear gun.

As to its good points, I will compare it with the Remington-Lee, which is the only other repeater on the market at present that handles this shell. The Remington-Lee and the Winchester both have box-magazines which extend beyond the receiver; but the Remington-Lee uses the bolt, while the Winchester depends on the lever to actuate the mechanism. In every other respect these arms are practically similar. It is simply a question of which system you prefer.

As far as actual hunting is concerned one rifle is as good as the other. I prefer the Winchester. The 32-40 bullet weighs 165 grains; the 30-40, 220 grains. The 32-40 has a velocity of 1385, while the 30-40 has a velocity of 1960 feet a second. The striking power of the 30-40 in foot pounds is 1,887 and that of the far famed 30-30 only 1,269. I leave it to the readers of RECREATION to figure out the force in foot pounds of the 32-40 with its 40 grains of black or low pressure smokeless powder and its 165 grain lead bullet.

If Mr. Benjamin intends to hunt game up to deer, a 32-40 is an excellent rifle; but if he wants an all purpose gun he will make no mistake in choosing a 30-40.

G. L. Watkyns, Pasadena, Cal.

WHAT A 38 WILL KILL.

I should like to know what a 38 caliber bullet, shot from a 38-56 rifle, would kill at a distance of 30 yards or more. Also, what a 38 rim fire bullet, shot from a revolver, would kill at 10 yards or more.

Thomas Kennelly, New York City.

ANSWER.

A bullet from a 38 caliber rifle, shooting

a 38-56-256 cartridge, will give about 10 inches penetration in pine. This cartridge is a killing charge for any game found in this country at ordinary ranges. For large and dangerous game, a still heavier charge would be desirable, although this charge would kill if the shots were properly placed. The 38 caliber is excellent for deer, brown and black bear and smaller game. The penetration of a 38 long rim fire pistol cartridge is about 2 inches in pine at a distance of 20 feet. This, of course, would be sufficient to wound a man fatally anywhere within 100 yards, if hit. There have been instances where game as large as deer has been killed by charges no heavier than the 38 rim fire, but this must be considered as accidental. It is usually folly to shoot at game with so small a charge, as the chances are the animal will escape wounded and ultimately die.—EDITOR.

PREFERS BULK POWDER.

I have tried every brand of nitro powder made or sold in this country. As I found the bulk powders in every respect better than the dense, I will write only of the former. In those, I obtained good results with DuPont, 3½ drams loaded in 2¾ inch, 12 gauge U. M. C. shells, one nitro card and 3 black edge wads. This load gave good pattern and fair penetration. An increase of powder did not improve it.

My favorite load for field shooting and at the trap is 3¼ drams powder in 2¾ inch shell; one nitro card, one nitro felt, one black edge wad; 1⅛ ounce No. 7 soft shot. In my Lefever gun this load will pattern 260 in a 30 inch circle at 40 yards, and fairly pulverizes clay targets. For live birds I use 3½ drams of powder, a black edge wad in place of the card, and same charge of shot. For ducks, the same load with No. 5 or No. 6 shot. The live bird load will target 268 pellets in a 30 inch ring at 40 yards. January 1st I killed with it 43 birds straight at 31 yards rise. Only one fell out of bounds, and I used the second barrel but 5 times.

I am sorry the Shultze people do not advertise their products in RECREATION, for I am sure it would pay them to do so.

Nitro, Auburn, N. Y.

SMALL SHOT.

Which has the longer range, the 7 mm. Mauser or the 6 mm. Lee straight pull? Which the greater penetration?

T. J. Gibbs, Eckley, Ohio.

ANSWER.

Because of its heavier bullet, the 7 mm. Mauser has a far longer effective range than the 6 mm. Lee. No data are obtainable as to the extreme range of either of these arms, but in the .311 German Mauser it is 4,300 to 4,400 yards. The 6 mm. Lee has a greater point-blank range and consequently a larger danger zone than any other rifle, but at distances exceeding 800 yards its light bullet, 112 grains, loses velocity rapidly, drifts badly and is seriously influenced by the wind. At short ranges the Navy rifle has more penetration than either the Mauser, Krag or Springfield. At mid-range the Krag and Mauser will lead, while at 1,500 yards the old 45 Springfield with its 500-grain bullet will come to the front.—EDITOR.

While hunting last season with a 47 caliber Snider Enfield, I put a bull moose from his bed at 40 yards, and planted a ball behind the shoulder before he had run 10 yards. He staggered a little, but rallied and was making straight away, about 100 yards off, when I put a ball in his flank, lodging in the shoulder, and down he went. As I approached he arose and started to run. I fired again, the ball passing through the shoulder blade, but not until a fourth bullet caught him in the neck, as he was getting out of sight, did he give up. Why did not the ball in the shoulder paralyze him and make him drop?

H. G. Finch, Lidstone, Manitoba.

ANSWER.

Evidently the bullet neither disabled the leg or passed through the heart and the shock was not sufficient to stop the moose. There is nothing unusual in this; animals frequently travel miles after being shot in the shoulder.—EDITOR.

Please tell me through RECREATION of a satisfactory light load for the 25-35 Winchester rifle, other than the factory miniature loads. I should like to do considerable practicing, but 75 cents a box of 20, counts up rapidly; besides, that load is too powerful for small game.

R. G. Joslin, St. Ignace, Mich.

ANSWER.

As far as I know, the only reduced charge for this cartridge, that gives good results is 5 grains by weight, or 5-16 dram by black powder measure, of Laflin & Rand sharpshooters' powder, with the regular bullet. If you will obtain a number of factory loaded miniature shells with the crease, you could reload them a limited number of times with the reduced charge referred to, using, of course, the same nitro primer and seating the bullet the same as in the regular factory miniature.—EDITOR.

The new service rifle which is being made up at the Springfield arsenal, and with which the army and navy are to be supplied as rapidly as possible, is said to be developed from the Krag-Jorgensen, since it possesses all the good points of that arm, with certain important improvements. The rifle will, however, be called the Springfield, model 1902. It will be made in 30 caliber, but the cartridge will carry a slightly heavier charge of powder than the old one. It is said that this new cartridge has developed an initial velocity of 2,200 feet a second, and that it has an effective killing range of 4,500 yards. The barrel of the new rifle is made of cupro-nickel, which will stand a higher pressure than the material used in the Krag-Jorgensen. The new rifle is about ¾ of a pound lighter than the old one, and with the superior mechanism, its operation is much easier and more rapid.

Some correspondent advised using emery to clean a rifle. That, of course, would cut a rifle out and ruin it. Common crayon chalk, pulverized and mixed with black oil and elbow grease, will make the inside of a rifle look like a new silver dollar, and will not injure it. Why would not vaseline be better than most of the oils we use for gun cleaning? Should like to hear from persons who have used it.

F. Q. Rutherford, Chihuahua, Mexico.

The following recipe for a mixture for cleaning the barrels of guns using nitro powder may be of use to some readers of RECREATION:

Vaseline oil, 4 parts; French turpentine, 1 part; naphtha, 1 part.

Saturate a rag with mixture and use in usual way. Then wipe dry and polish.

J. D. B., Colorado Springs, Colo.

Kindly tell me if you think the Winchester 30-40 strong enough for the big game of the East, such as lions, rhinoceros, elephants, etc.? Do you consider the Lee straight pull gun better for big game than the 30-40?

Geo. Squire, New York City.

ANSWER.

The Winchester people, to whom I referred your first question, say they have no personal knowledge of the use of their 30-40 guns on lions, rhinoceri and elephants, though they have heard that their 30-40 cartridges and the corresponding Mauser cartridges have proven successful on these animals, especially on lions.

The 30-40 rifle has a muzzle energy of 1,950 feet, whereas the 6 m-m navy has a muzzle energy of only 1,630 feet. The difference is not great, but is in favor of the 30-40.—EDITOR.

What is the best way to load the old style army 44 caliber revolver, using percussion caps?

E. A. Cockey, Wilkinsburg, Pa.

ANSWER.

Use the special percussion cap for muzzle loading revolver, a full charge of black powder and the regular grooved bullet. Dupont's rifle powder f. f. g. should give good results. A finer grain might sift into the nipple causing hang-fires, and a coarser grain would not burn perfectly. The little powder flasks that were issued to officers during the Civil War are handy for measuring the charge. The grooves of the bullet should always be filled with lubricant, and both powder and ball should be firmly pressed home with the rammer attached to the barrel of the revolver.—EDITOR.

I have used several different kinds of rifles but think for all around use the 30-30 Winchester is the best. It is light and effective. I have used a 32-40 single shot Stevens and think it fine for small game. I have also used 7 m-m and 7.65 m-m Mauser military rifles. They are powerful weapons and accurate, but the Lee will beat either for range or penetration. I have seen both 32-40 and 30-30 Marlin rifles stick. When worked fast the Marlin would make an excellent crowbar. I am now using a .303 '95 model Savage, fitted with Lyman sights. It is powerful and accurate. Have not as yet used it on game, but think it will kill any found on this continent. It has as much smashing effect on a target as a 50-70 Remington. The Winchester is, in my opinion, the best rifle made.

Winchester, East Helena, Mont.

Will some reader please tell his experience with a 16-bore at the trap and the best load to use.

E. J. S. Miller, Concord Jct., Mass.

ANSWER.

On general principles 10 and 12 gauge guns are better for trap shooting of all kinds than a 16 gauge. A full choked 16 gauge gun of sufficient weight would be a much better trap gun in the hands of an expert than an open bore 12 gauge gun; but everything being equal, the 12 gauge will give better results. The usual load for an ordinary 16 gauge is 2½ drams black powder, measure of bulk nitro powders, with one ounce of shot. This is all the regular length shell will hold properly with the necessary wadding.—EDITOR.

Can you tell me the range, penetration, and velocity of the Harrington and Richardson 22 caliber Premier, with short cart-

ridges? Also of Hopkins and Allen, same caliber.

Have been reading RECREATION 2 years and can not get along without it.

Chas. J. Green, New York City.

I have not tested either of the revolvers in question but should judge that the effective and accurate range would be 50 feet, and the penetration at 20 feet from the muzzle 2 inches of dry pine boards. For the velocity there are no figures obtainable. The foregoing applies to a revolver with 4-inch barrel. Longer barrels are more powerful and *vice versa*.—EDITOR.

Please tell me if there is a Chichester Arms Co. and if so where? I have a 22-caliber target pistol, barrel 7 inches long, and on it the word "Chichester" is engraved. I have broken the hammer and wish to get a new one.

Jno. H. Henke, Steubenville, O.

ANSWER.

The Chichester Arms Co. has gone out of business, having disposed of its entire stock some time ago to the Hopkins & Allen Arms Co. I suggest that you address these people at Norwich, Conn. In case they do not have the part you desire, the only way you can replace it is to have one made to order by a competent gunsmith.—EDITOR.

I find in March RECREATION a query by G. C. G., which I can answer. I have a 20 gauge Parker, $50 grade, 6¼ pounds, 28 inch barrels. I wanted a trap target load, and after trying all powders and loads I found 18 grains Ballistite powder and ⅞ ounce chilled No. 7 shot, hand loaded by Jespersen & Hines, in Repeater ¾ base shells, gave best results. With this load, shooting from the 16 yard mark, I have broken 24 out of 25, 9 out of 10 and 13 out of 15. The pattern of this load, while of course smaller, is equal in regularity and penetration to that made by my 12 gauge loaded with 25 grains Ballistite and 1⅛ ounces of shot.

C. A. Phillips, New York City.

The Winchester pump is the gun of guns when price, durability and reliability are to be considered. It is a strong, hard, close shooter, and the best gun for the money made. I have made patterns of 75 to 85 per cent in a 30-inch circle at 40 yards. Its penetration is as good as that of my big 10 gauge Syracuse with a much larger load. I use Winchester leader shells, loaded with 3¼ drams Dupont smokeless, one nitro card wad, one white felt, one black edge wad, and 1½ ounces shot; number 5 for ducks and 8 or 9 for snipe.

J. E. Kirkbride, Boulder, Colo.

I have a Geo. Fisher gun with 32 inch barrels. It is muzzle-heavy, and I think it would balance better if barrels were shortened 2 inches. Would you advise me to have that done? Could the lever be changed from the left side to the right?

W. Wookey, Waterbury, Conn.

ANSWER.

If the barrels are choked, as is probable, it will greatly injure the pattern to cut them down. Consult a good gunsmith in regard to the alterations you suggest.—EDITOR.

Do you think a 32 caliber revolver would prove an effective weapon in a hand to hand fight with a grizzly?

E. E. Vance, St. Joe, Mo.

ANSWER.

A grizzly may live hours with several 50 caliber express bullets in his body, even if they are so placed that each would in time prove fatal. It would be absurd to attack a bear with a 32 caliber revolver. Of course a lucky shot might prove instantly fatal, but in such a fight the odds all favor the bear.—EDITOR.

I have a '92 model, round barrel, half magazine 32-20 Winchester. Though not so accurate as the 22 long rifle, it has proven reliable at 100 to 300 yards. As a small game gun it is gilt edged. I shall use it this fall for deer hunting and expect it to prove effective with split bullets. Of course one must be able to put a bullet in the proper spot if he is to kill deer with so light a cartridge.

Will someone tell me how to make a good pack basket harness?

Le Reynard, St. Johnsbury, Vt.

I have used a '97 model Winchester pump gun with great satisfaction. It never failed to extract empty shells. It works best with Repeater shells loaded with 2¾ or 3 drams of Schultze and 1⅛ ounce shot. I never had a 22 rifle that did better work than a 1900 model Winchester, listing at $5. I find the '92 model, 25-20 Winchester repeater an excellent gun. For reloading I use 17 grains ffg and 86 grain bullet, loaded with Ideal tool No. 4.

Wm. Dyer, Stamford, Conn.

Would not a new gun of given gauge, choke and length of barrel, shoot better than a similar gun with barrels slightly swelled from overloading?

J. H. Ayle, Grandville, N. Dak.

ANSWER.

The loss in penetration or velocity due to the slight enlargement of bore would be inappreciable and could not be noticed

in shooting at game. In theory, the difference would be in favor of the true gauge barrel.—EDITOR.

My favorite guns are both Winchesters; one a '97 model, cylinder brush gun, and the other a 22 caliber. The Marlin is a good looking and hanging gun, but its action is N. G. I know this from experience, and that Peters' shot gun ammunition ranks in the same class. We are all anxious to see that Savage 22. It ought to be good, and if you will send me a few copies of RECREATION I will try for the first one you get. Lee Mann, Saginaw, Mich.

I am much interested in the controversy concerning the superiority of the 30 over the larger calibers. Should like to hear more of the 25-25, 32 Ideal, 32-40 and the 25-10 Stevens cartridges. In single shot rifles I am wedded to the Stevens, especially the Ideal, for it is so durable and accurate. The reversible link is a special point in favor of Ideal rifles. Would the 32-40, with mushroom bullets, answer for deer? V. J. N., Dubuque, Ia.

Kindly tell me if there is a book published on the modern shot gun, telling the range and penetration of the 12, 16 and 20 guage, and for what game each guage is adapted.

Wm. Row, Jr., Paterson, N. J.

"Modern Shot Guns," by W. W. Greener, while not a recent publication, is one of the best on the subject.—EDITOR.

I have a Parker hammerless, bought 2 seasons ago. It has 30-inch barrels and puts 252 No. 7 shot in a 30-inch circle at 40 yards. It is the best duck gun I ever saw. When shooting quail I use 2¾ drams smokeless powder and 1 ounce No. 9 chilled shot, with spreaders in the right barrel.

Thomas P. Neet, Versailles, Ky.

I have a 32 Stevens of the tip-up pattern which is a fine woodchuck gun. It can be depended on to put 8 out of 10 shots in a 6-inch circle at 100 yards. Is there a single shot Winchester, 32 Ideal caliber? If so, what is its record for accuracy? Of course few readers of RECREATION think much of Marlin. L. E. Hinman, Ravenna, O.

I have been hunting 25 years, using until 3 years ago a '73 model 44 Winchester. I now have a .303 Savage, a repeating shot gun and a 44 caliber revolver. The 30-40 is all right in its place, but should be confined to military use and not sold to tenderfeet to hunt game and kill men with.

Kit Lendie, Brooklyn, N. Y.

I shoot a Winchester repeating shot gun, model '97, take down, 26-inch barrel, modified choke, which is too open for ducks. I am going to get an extra barrel, and have almost decided on a 28-inch. Will that length shoot as hard and close as a 30 or 32 inch, using smokeless powder?

W. D. Trout, Cambridgeport City, Ind.

Would advise A. G. Burg, or anyone else who wants a thoroughly reliable medium priced gun, to get an Ithaca. I have a 12 gauge, 7¾ pound, 32-inch wide barrel, Ithaca, that I have been using steadily over 6 years. It is just as tight as when new, and a firstclass shooter.

R. G. Price, E. Sherbrooke, P. I.

I join in the chorus of criticism on the Peters people and their goods. Recently I have been using the Winchester, U. M. C. and Peters' cartridges in a 22 rifle. I tried both short and long of all makes, and found Peters' goods far less satisfactory than the other 2.

A. O. Garrison, St. Louis, Mo.

I should like to hear through RECREATION from someone who has used the Luger automatic revolver on big game. Would it answer in the place of a rifle to kill game for food where game is plentiful and can be approached within 50 to 100 yards? A. L. Taber, Santa Ana, Cal.

C. R. Benjamin asks how the 30-30 compares with the 32-40 as a deer gun. Have never used a 32-40, but think the 30-30 Winchester the best gun for small game. For elk I want a 30-40, soft nose; for sheep, a .303 Savage.

Felix Alston, Irma, Wyo.

I should like to communicate with readers of RECREATION who may have ordered rifles from John H. Blake, formerly of New York city, but now of Batavia, N. Y., and who may not have received same. Address, Attorney, care RECREATION.

Will someone who has used the 25-20 and the 25-25 Stevens tell me which is the best for all around shooting? Would a 25-20 kill a deer at 150 yards?

C. I. White, Rochester, Pa.

Although we shall have plenty of game and shall shoot many shells, Peters will not sell many here and Marlin guns will be as hard to find as heretofore.

J. W. S., York, Neb.

Will someone who has used the Mauser automatic pistol please tell me if it is better than a Colt revolver, and if so, why?

M. L. Meason, Lesser Dog Creek, B. C.

NATURAL HISTORY.

When a bird or a wild animal is killed, that is the end of it. If photographed, it may still live and its educational and scientific value is multiplied indefinitely.

BOBCAT OR LYNX?

Recent numbers of RECREATION proved of more than usual interest to me through containing articles on the lynx and the bobcat.

I think, however, some of the writers have confused 2 different animals. The author of "The Bobcat's Banquet," certainly makes a mistake when he calls the animal represented by his excellent photographs a lynx, a wildcat, and a bobcat, as if the 3 were names for the same animal.

A lynx and a bobcat are different animals. Their color, habits, etc., are much the same, while their shape is far different. A lynx is long bodied, long legged; a bobcat is short legged and compactly built. A lynx has large feet entirely covered with hair, making tracks so large that he is sometimes followed by a hunter who thinks he is pursuing a bear. He soon finds out his mistake, for the lynx has a habit of walking on every log and pole in his line of travel. When the hunter sees his supposed bear tracks extending the length of a 4-inch pole 2 or 3 feet from the ground, his ardor cools, and he damns the "lucifer," for so he pronounces "loupcewier," the lynx's Canadian name.

Another difference is the shape of the ears. Those of the bobcat are short; those of the lynx are longer and have a tuft of long hairs on the tips. The bobcat is a heavier animal than the lynx, sometimes weighing over 40 pounds. I have seen one tip the scales at 45, but he was an unusually big fellow. The fur of the lynx is far better than that of the bobcat, and is worth 3 or 4 times as much.

The question as to which animal the writer of the article means would be hard to answer from the description given, but fortunately we have the photographs to aid us, and a study of them will help us decide. Examining the pictures we see, in all but the first, a compact, muscular animal. The first photo was taken at the beginning of his feast and that perhaps is why it shows a less chunky animal. We see no long hairs on the ends of his ears, which proves beyond doubt that he is a bobcat; not a lynx.

In Maine, lynx are not abundant at present, though there are some in the Northern part. I never heard of their killing many deer; but the bobcat, which is far more numerous, kills hundreds every year. Some men claim that most of the deer found eaten by cats were killed by hunters; but on the snow you can see where the cat crawled up and killed his prey before it could rise from the ground. At other times he will spring from a tree on to the hapless deer and bear it to the ground. The deer found dead are generally does and fawns, though often an old buck falls victim to the bobcat.

W. H. Young, Whitefield, N. H.

ANSWER...

A general view of the genus *Lynx* as it exists in North America, reveals the fact that the popular name "lynx" is a perfectly correct designation for all the animals commonly called bobcats. Mr. Young seems to consider that the name "lynx" applies only to the well known Canada lynx (*Lynx canadensis*), which he correctly describes. On the contrary, the name is as generally and as correctly applied to the species scientifically designated as *Lynx rufus,* and long known in all works on natural history as the "bay lynx," or "red lynx." In some portions of the United States, it is also called the wildcat. This is the species represented in the "Bobcats' Banquet," in the June number of RECREATION. The name bobcat, as applied to *Lynx rufus* and its varieties, is now coming into general use throughout the United States. It is applied indiscriminately, not only to the well known *Lynx rufus,* but also to the many sub-species of that animal that are found in Florida, Texas, Arizona, Idaho, Washington, and farther North.

Elliot's "Synopsis of the Mammals of North America" (1901), enumerates the following species:

Lynx canadensis, of Canada generally; one sub-species in Alaska and one in Newfoundland.

Lynx rufus, of central North America, and 9 sub-species, inhabiting the Western half of North America as far South as Mexico.

Lynx gigas, of Nova Scotia, described in 1897; resembles the bay lynx more closely than the Canada lynx.

All these, wherever found, are lynxes, just as much as the Canada lynx: but, as stated above, all those coming under *Lynx rufus,* and its 9 sub-species, are generally spoken of to-day as bobcats. The Canada lynx is easily recognized by the long, black pencil of hair rising from the tip of each ear. Some sub-species of the bay lynx show a small ear-pencil, others none; but there is no mistaking the differences between the 2 species. The so-called bobcats and wildcats are, therefore, lynxes.

W. T. H.

PRACTICAL GAME RAISING.

Lewisburg, O.

Editor RECREATION:

Someone asked in a recent number of RECREATION, what becomes of the horns of moose, deer and elk after they fall off. I have hunted in many parts of the United States and never, save once, found horns that were not badly gnawed. I think they are devoured chiefly by mice. I raise elk and deer. Last spring I could not, for several days, find the horns dropped from a large elk. When I did find them, the points were badly eaten, and the fact that they lay in an open field convinced me they had been eaten by field mice.

In May RECREATION I noticed an interesting account of a hunt in the Hell creek country. I have had the pleasure of hunting there and it is the only place where I ever found any deer horns in good preservation. I also found there a mountain sheep whose horns measure 16 inches at base, and a large mule deer with as fine antlers as can be shown by anyone. I had both mounted, and they stand to-day in my home.

Have had experience in raising quails and pheasants. No one can keep his birds on his own territory unless he offers them inducements to remain. Two things, at least, are essential, food and water. The easiest way to feed these birds in winter is to plant a patch of mixed broom corn and cane. Break the cane and corn down about 2 feet from the top, thus making both cover and feeding grounds. If you do this, and forbid shooting on your land, you will have quails and pheasants in abundance. I tried the plan one year ago and it worked to perfection. This year I have 2 broom corn patches on different farms, and some of my neighbors are doing as I did. We have hundreds of Mongolian pheasants in our neighborhood and in a few years expect to have thousands.

The question is often asked, "Can quails be domesticated?" One of my neighbors has Bob White quails that run and roost with his chickens. Last year I raised 12 quails and they were just as tame as young chickens until I lost track of them through changing my residence.

Doubtless there are many people who would like to raise elk and deer did they know how easy it is to do. For their benefit I offer a few suggestions.

Select your territory and let it be a dense thicket or an open woodland with some cleared ground adjoining; that is, if a small park is in view. My deer and elk are fond of alfalfa clover. I have an enclosure of 18 acres, with only a few trees in it, in which I keep 6 elk, 3 deer and 2 horses. A portion of the lot is in timothy and there are about 3 acres of native blue grass. My elk and deer feed more frequently on the clover than on either blue grass or timothy. No one should attempt to raise deer in large numbers unless at least one elk is kept with them. The worst enemy deer have is the dog, and woe unto a dog if he gets in a park where there is an elk. Build your fence with Page woven wire.

The best and cheapest food for elk in winter is corn fodder. The best corn fodder can be made by sowing sweet corn or drilling it like wheat. Common corn, cut up the ordinary way, makes good fodder for elk; deer will not eat it. The latter should be fed on either corn or bran or both. There may be a better food for deer that I am not aware of; if so, I should be glad to hear of it.

Where can I buy a pair of mule deer and a pair of fallow deer?

F. J. Wilson.

HARRY'S CHIPMUNK.

As I write I am conscious of being watched by the sparkling brown eyes of the children's latest pet, a ground squirrel. We have had him several days and he seems quite content. The children tacked screen wire over the top of a box; and this, turned on one side, gives us a good view of him. A cigar box in one corner of the cage serves as a den into which he can retreat when tired of our company.

Just now he is curled up with his head resting on his fore paws, exactly like a dog, while his bushy tail is spread gracefully around his hind feet. He has the cover of a baking powder box for a water cup; and sometimes, when in a playful mood, he takes the edge of this little tank between his teeth, and running backward, pulls it to one end of his cage, so he can have the place it occupied to run around in without danger of jumping into it and wetting his feet. That is a calamity to be avoided, if possible, to judge from the pains he takes to dry his feet when by accident he has stepped in the water.

The children give him shelled corn, of which he eats only the heart of the grain. He is fond of walnuts, butternuts, etc., with which the children keep him abundantly supplied. Of course, they are always trying him with everything they can think of in the eating line. One day they gave him some lean meat, cooked. He ate it as though he had been raised on it. Another time they gave him some raw meat; he would not eat it, but rooted it all over his cage, just as a pig might do, and finally pushed it down a crack.

Sometimes we let him out in the sitting room, first closing all the doors. He

scampers around the room, runs up the window curtains and will climb to the top of any piece of furniture on which he can get a foothold.

He carries his bushy tail in a straight line with his body when running. When put back in his cage he seems glad to get home. A never ending source of amusement to the little ones is to watch him wash his face. This he does every time he gets through eating, and as they are constantly feeding him he performs his ablutions with great frequency. Harry looks on and remarks grimly that he is glad he is not a chipmunk. His antipathy to water is proverbial, and to him cleanliness is only vanity and vexation of spirit.

The squirrel begins by licking his paws. Then he rubs them together carefully, and again licking his paws, he commences on his face and head, which he rubs with great rapidity, whirling his paws over his ears as if he were taking a regular shampoo. He finishes by smoothing his breast and then settles for a nap.

He is an amusing pet, but sometimes he seems to want to get out; and Harry says he will soon carry him back to the woods and give him his freedom.

A. M. M., Vernon, Ia.

SOME WISCONSIN BIRDS.

Milwaukee, Wis.

Editor RECREATION:

May 11, while visiting Forest Home cemetery, the finest near the city, I noticed a robin's nest, apparently just built, but empty. The eggs had either been taken out, or the bird had not yet laid any therein. The nest was in a crevice of a headstone, about 3 to 4 feet from the ground, the stone being in shape of a tree stump, and being about 5 feet high.

May 10 we had a severe snow storm here, but the martins and tree swallows did not mind the storm, staying inside their houses, the temperature 36 degrees. Robins and purple grackles fed in the yard, the latter on bread thrown out to them.

My pair of bluebirds are again all right. The box they are in is not over 6 feet from the ground, and I can easily reach the entrance with my hand. This seems too low for the English sparrows, who give the house a wide berth.

Two purple martins arrived that must have been here last year, as they at once made themselves at home. In fact, one of them had a severe fight, in one of the rooms of the birdhouse, lasting fully 20 minutes, with a martin that had been here over 30 days.

It does not appear to be generally known that the male martins do not get their purple coat until the second year. Neltje Blanchan describes the male martin as purple, the female grey. This is an error, as all the yearling males are also grey, differing only slightly from the females. Last year I had 5 pairs of martins, none of the birds being purple, showing the certainty of grey male birds. The males generally have darker feathers about the head, and a few prominent dark feathers on the breast. Otherwise they look like the females. The purple ones know the young males very well, however, and many a fight have I seen between them. The males will not fight with the females, but will allow themselves to be pecked by their mates without retaliating.

A house wren visited me this year, and a dozen cedar waxwings. Robins are numerous throughout the city, nesting on shade trees.

Frederick Wahl.

RATTLESNAKES AND ROADRUNNERS.

The old story about the roadrunner fencing in a sleeping rattlesnake with cactus was retold in March RECREATION. When I first heard the story some years ago, I doubted that the rattlesnake could be caught in that way, and asked old settlers, Mexicans and Indians, if they had ever seen it done or knew of anyone who had. All said they had heard the story from somebody who had heard it from somebody else; none had seen evidence of its truth.

Rattlesnakes live among cactus, and glide along where the ground is thickly covered with prickly pear and chollas balls of the most spiny kind. If fenced in by chollas it would not disturb the reptiles in the least; they could easily push it aside or glide over it, without suffering any inconvenience, as their skin is not easily penetrated. It would be impossible for the roadrunner to use the prickly pear lobes. They are not shed, the bird never could break them off, and could not lift one if he did.

A rattlesnake will sometimes, when in anger or agony, bite or grab a part of his body. He does not use his fangs or striking teeth, but instead, the small seizing teeth of both jaws, and closes his mouth in so doing. When striking, his mouth is wide open, and the fangs are thrust forward from the upper jaw.

I have never heard roadrunners chatter and had always believed them voiceless. One day last summer while sitting on a hillside, a roadrunner came through the sage brush to within a few feet before discovering me. He bristled up his feathers, pointed his tail straight up and uttered a sound nearly like the note of a cuckoo only more harsh. This he repeated several times, getting a little farther away

each time. The roadrunner, or paisano, as he is called by Californians, is becoming scarce. He is never killed to eat, but is shot by thoughtless hunters and tourists merely that they may say they have killed a roadrunner.

C. W. Gripp, Pacific Beach, Cal.

HOW TO BEGIN SKUNK FARMING.

Will Mr. Ramsey McNaughton please tell me the best and cheapest way to build a fence to keep skunks in? How high should such a fence be? I have a fine place for skunks, on the side of a sloping hill. I thought of fencing in 4 acres, one acre to be cleared land and 3 in small trees and shrubs and some small rock. My plan is to set posts 6 or 8 feet apart, set slab rock in the ground between the posts, with a level top on the rock and nail planks 5 feet long up and down to come within ½ inch of the rock. This would permit the skunks to roam in the 3 acres of woodland and eat such vegetables as I should plant in the acre of cleared land. I should turn loose in the same enclosure 10 or 15 Belgian hares. This would give the skunks meat when they might wish to catch the hares, as the Belgians increase fast. Can you name some paper or book on skunks?

J. H. Colter, Georgetown, Ohio.

ANSWER.

Skunk farming has been proven practical and profitable, but like every other business, to comparatively few; so I beg of you in all friendliness not to go into it until you try a small pen of half a dozen and catch them yourself. Do not buy them, or spend any money on them. Select about 100 feet square of rocks and brush, with a spring or brook within it if possible, and with some abandoned old building on it for the skunks to make a warm home under. Enclose all in a 5 foot poultry wire fence, sunk 18 inches in the ground. Feed the skunks twice a day at some regular time, whatever quantity they eat up clean. Do not leave an excess of food around. If you grow fond of these gentle, tame and beautiful little creatures, which are never necessarily offensive, and if they thrive, there will then be time enough to go into the business further.

RECREATION is likely to have a careful new article on "That Skunk Question" in an early issue. R. Macnaughton.

NATURAL HISTORY NOTES.

While driving I noticed a bird about the size of a common hen turkey, with somewhat longer legs and a bill about 4 inches long. The bird resembles in color a brown thrush on the back and wings. Being at a distance of 100 yards or over, the bird running away from me, I could not discover any other colors. I jumped out of the buggy and raised the bird. In its flight and after alighting 200 yards away in a swampy place, it cackled, or croaked, like raven. The bird seemed to favor the low land or marshy ground. In all my travels in the upper and lower peninsula of Michigan, I never saw its like. Can you give me any information as to what it is?

P. P. Chase, Ishpeming, Mich.

ANSWER.

From the description given, I am unable to identify the bird, nor can anyone to whom I have referred the matter even give a good guess as to what the bird was. Further information is necessary to identification.—EDITOR.

I agree with J. C. Warren that the tapping sound under water, about which Mr. Covert asks, is caused by fish. I do not, however, think the noise is made while the fish are feeding. I have heard the sound over 30 years, and have investigated dozens of times, always with the same result. The atmospheric conditions are always the same—warm, muggy, no wind, and the drift stationary, or almost so. The sound comes from beneath the drift at the surface of the water. I am positive the fish comes to the surface in the shade and sticks his nose against the drift, the noise being produced by suction in an effort to take in a little air. In every case in my experience the common black sucker made the sound. I can go any day, with above mentioned favorable conditions, where the sound can be heard.

W. W. Walsingham, Ellsworth, Wis.

Will you kindly advise the period of incubation for hatching young quails? I have often heard statements on the subject, differing as to the time, some claiming quail eggs require 13 days' hatching, others 18 days, and still others 21 days.

D. P. Faust, Shamokin, Pa.

ANSWER.

One of the California quails in the New York Zoological Park has just hatched a brood of 14 chicks in 21 days. I think that is the period for American quails generally.—EDITOR.

Please tell me what is proper food for a young crow? I caught one apparently just after he had left the nest. He does not seem to relish bread and milk.

Harold Bowditch, Cambridge, Mass.

The proper food for a young crow is mashed potatoes and hard boiled egg, chopped and mixed with a little water into a stiff paste. Feed about every hour, while the bird is young.—EDITOR.

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"	S. W. Fuller,	East Milton.
Suffolk,	Capt. W. J. Stone.	4 Tremont Row, Boston.

LOCAL WARDENS IN NEW JERSEY.

Mercer,	Jos. Ashmore,	124 Taylor St., Trenton.
Mercer.	Edw. Vanderbilt,	Dentzville, Trenton.
"	Roland Mitchell,	739 Centre St., Trenton.
Morris,	Joseph Pellet,	Pompton Plains.
"	Chas. W. Blake,	Dover.
"	Francis E. Cook,	Butler.
"	Calone Orr,	Hibernia.
Somerset,	G. E. Morris,	Somerville.
Sussex,	Isaac D. Williams,	Branchville.
Union,	A. H. Miller,	Cranford.
	C. M. Hawkins,	Roselle.
Warren,	Jacob Young, Reuben Warner,	Phillipsburg.
Monmouth.	Dory-Hunt,	Wanaque.
Hudson,	A. W. Letts,	51 Newark St., Hoboken.

LOCAL WARDENS IN PENNSYLVANIA.

Jefferson,	John Noll,	Sykesville.
Perry,	Samuel Sundy,	Lebo.
Warren.	F. P. Sweet.	Goodwill Hill.
"	Nelson Holmes,	Cornplanter.
Juniata,	Clifford Singer,	Oakland Mills.
"	Ezra Phillips,	McAlesterville.
Venango,	G. D. Benedict,	Pleasantville.
Potter,	Ira Murphy,	Coudersport.
"	Wiley Barrows,	Austin.
"	Chas. Barrows,	Austin.
Crawford,	Jasper Tillotson,	Tillotson.
"	Geo. T. Meyers,	Titusville.
"	J. B. Lamb,	Buel.
Cambria,	W. H. Lambert,	720 Coleman Ave., Johnstown.
Butler,	F. J. Forquer,	Murrinsville.
Allegheny,	S. H. Allen,	Natrona.
Beaver,	N. H. Covert,	Beaver Falls.
"	W. R. Keefer,	"
McKean,	C. A. Duke,	Duke Center.
"	L. P. Fessenden,	Granere.
"	Wm. Holsinger,	Stickney.
Lack,	Wm. Weir,	Moosic.
Carbon,	Asa D. Hontz,	East Mauch Chunk.
Cumberland,	J. C. Gill,	Mechanicsburg.
Wyoming,	Cyrus Walter,	Tunkhannock.
Tioga,	E. B. Beaumont, Jr.,	Lawrenceville.
"	G. H. Simmons,	Westfield.
Lycoming,	Jas. J. Brennan,	Oval.
"	B. D. Kurtz,	Cammal.
Delaware,	Walter Lusson,	Ardmore.
Montgomery,	L. C. Parsons,	Academy.
Bradford,	Geo. B. Loop,	Sayre.
Clarion,	Isaac Keener,	New Bethlehem.
Cameron,	Harry Hemphill,	Emporium.
Clinton,	M. C. Kepler,	Renovo.
"	Geo. L. Kepler,	Renovo.
Northumberland,	G. W. Roher,	505 Anthracite St., Shamokin.
Elk,	D. R. Lobaugh,	Ridgway.

LOCAL WARDENS IN MICHIGAN.

County.	Name of Warden.	Address.
Ottawa,	W. H. Dunham,	Drenthe.
Kalamazoo,	C. E. Miller,	Augusta.
Berrien,	W. A. Palmer,	Buchanan.
Cass,	Thomas Dewey,	Dowagiac.
Hillsdale,	C. A. Stone,	Hillsdale.
Lake,	John Trieber,	Peacock,

LOCAL WARDENS IN VIRGINIA.

Mecklenburg,	J. H. Ogburn,	South Hil.
King William,	N. H Montague,	Palls.
Smythe,	J. M. Hughes,	Chatham Hill.
King & Queen,	R. D. Bates,	Newtown.
Louisa,	J. P. Harris,	Applegrove.
Henrico,	W. J. Lynham,	412 W. Marshall. Richmond.
East Rockingham,	E.J.Carickhoff,	Harrisonburg.

LOCAL WARDENS IN WYOMING.

Fremont,	Nelson Yarnall,	Dubois.
Uinta,	S. N. Leek, F. L. Peterson,	Jackson.
Carbon,	Kirk Dyer,	Medicine Bow.
Laramie,	Martin Breither,	Cheyenne.

LOCAL WARDENS IN TENNESSEE.

Sumner,	W. G. Harris,	Gallatin.
Stewart,	John H. Lory,	Bear Spring.
Robe tson,	C. C. Bell,	Springfield.
Montgomery,	P. W. Humphrey,	Clarksville.
Madison,	H. T. Rushing,	Jackson.

LOCAL WARDENS IN NEBRASKA.

Hall,	E. C. Statler,	Grand Island

LOCAL WARDENS IN NEW HAMPSHIRE.

Cheshire,	S. C. Ellis,	Keene.
Sullivan,	G. A. Blake,	Lempster.
"	J. W. Davidson,	Charlestown.

LOCAL WARDENS IN VERMONT.

Rutland,	Wm. J. Liddle,	Box 281, Fair Haven
Windsor,	F. A. Tarbell,	West Bridgewater.
Orleans,	E. G. Moulton,	Derby Line.
Essex,	H. S. Lund,	Granby.

LOCAL WARDENS IN ILLINOIS.

Rock Island,	D. M. Slottard,	12th Ave and 17th St., Moline.
Iroquois,	J. L. Peacock,	Sheldon.

LOCAL WARDENS IN OKLAHOMA.

Kiowa and Comanche Nation,	A. C. Cooper,	Ft. Sill.

LOCAL WARDENS IN IOWA.

Clinton,	D. L. Pascol,	Grand Mound.
Pottawattamie,	Dr. C. Engel,	Crescent.

LOCAL WARDENS IN WASHINGTON.

Okanogan,	James West,	Methow.
Stevens Co.,	Jacob Martin,	Newport.

LOCAL WARDENS IN UTAH.

Washington,	S. C. Goddard,	New Harmony.

LOCAL CHAPTERS.

Albert Lea, Minn.,	H. A. Morgan,	Rear Warden.
Angelica, N. Y.,	C. A. Lathrop,	"
Augusta, Mont.,	H. Sherman,	"
Austin, Minn.,	G. F. Baird,	"
Austin, Pa.,	W. S. Warner,	"
Boston, Mass.,	Capt. W. I. Stone,	"
Buffalo, N. Y.,	H. C. Gardiner,	"
Cammal, Pa.,	B. A. Ovenshire,	"
Champaign, Ohio,	Hy. F. MacCracken Urbana,	"
Charlestown, N. H.,	W. M. Buswell,	"
Cheyenne, Wyo.,	J. Hennessy,	"
Choteau, Mont.,	G. A. Gorham,	"
Cincinnati, Ohio,	B. W. Morris,	"
Coudersport, Pa.,	I. L. Murphy,	"
Cresco, Iowa,	J. L. Platt,	"
Davis, W. Va.,	J. Heltzen,	"
Dowagiac, Mich.,	W. F. Hoyt,	"
East Mauch Chunk, Pa.,	E. F. Pry,	"
Evansville, Ind.,	F. M. Gilbert,	"
Fontanet, Ind.,	W. H. Perry,	"
Ft. Wayne, Ind.,	W. L. Waltemarth	"
Great Falls, Mont.,	J. M Gaunt,	"
Heron Lake, Minn.,	K. C. Buckeye,	"
Hollidaysb'g, Pa.,	H. D. Hewit,	"
Hopkinsville, Ky.,	Hunter Wood,	"
Indianapolis, Ind.,	Joseph E. Bell,	"
Jerome, Ariz.,	Dr. L. A. Hawkins,	"
Johnsonburg, Pa.,	W. J. Stebbins,	"
Kalispell, Mont.,	John Eakright,	"
Keene, N. H.,	F. P. Beedle,	"
Kingfisher, Okla.,	A. C. Ambrose,	Rear Warden
Lake Co., Ind.,	Dr. R. C. Mackey,	"
Lawton, O. T.,	Marion Miller,	"
Logansport, Ind.,	E. B. McConnell,	"
Ludington, Mich.,	G. R. Cartier,	"
Mechanicsburg, Pa.,	Dr. J. H. Swartz,	"
Minturn, Colo.,	A. B. Walter,	"
New Albany, Ind.,	Dr. J. F. Weathers,	"
New Bethlehem, Pa.,	Isaac Keener,	"
Penn Yan, N. Y.,	Dr. H. R. Phillips,	"
Princeton, Ind.,	H. A. Yeager,	"
Reynoldsville, Pa.,	C. F. Hoffman,	"
Ridgway, Pa.,	T. J. Maxwell,	"
Rochester, N. Y.,	C. H. McChesney	"
St. Paul, Minn.,	O. T. Denny,	"
St. Thomas, Ont.,	L. J. Hall,	"
Schenectady, N. Y.,	J. W. Furnside,	"
Seattle, Wash.,	M. Kelly,	"
Syracuse, N. Y.,	C. C. Truesdell,	"
Terre Haute, Ind.,	C. F. Thiede,	"
The Dalles, Ore.,	C. B. Cushing,	"
Walden, N. Y.,	J. W. Reid,	"
Wichita, Kas.,	Gerald Volk,	"
Winona, Minn.,	C. M. Morse,	"

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W. H. Smith, Bryn Mawr, Pa.
E. B. Smith, Bourse Bldg., Philadelphia, Pa.

There are thousands of men in the United States who should be life members. Why don't they join? Will someone please take a club and wake them up?

A GOOD WORKING PLAN.

Clarksville, Tenn.

I enclose herewith a letter received from a gentleman in East Tennessee, also copy of my answer to his letter.

The publication of these 2 letters in RECREATION might set other people to work and the membership of the League might thereby be increased.

P. W. Humphreys.

Knoxville, Tenn.

P. W. Humphreys, Clarksville, Tenn.:

I see your address in June RECREATION as one of the members of the L. A. S., and I write to ask you if we can not in some way get the Legislature of our State to pass a law forbidding the sale of game. Tell me your candid opinion in this matter. If there is any way to stop this market hunting let us try to do it.

H. Woodward.

Clarksville, Tenn.

Mr. H. Woodward, Knoxville, Tenn.:

I have been for several years much interested in this matter of better laws for protection of game and fish in Tennessee, as it is a broader question than the average person seems to understand. There is one sure way to accomplish this end, and that is through the League of American Sportsmen. Our only hope is to do the work ourselves, by getting together a rousing big membership in the State. There should be a chapter of at least 50 members in each of the 96 counties. That would give a membership in the State of 4,800. Even if we had only half that number of members, we could secure all the legislation needed; and backed by the co-operation of each member, in a few years our streams would be teeming with fish and our fields alive with game birds. We need uniform game laws; that is, laws applying alike to all counties in the State. At present, almost every county in Tennessee has a game law different from that of some other county, and such lack of uniformity in laws is not conducive to the end sought.

All the laws on earth will do us no good, however, unless we have a large representation of gentlemanly sportsmen and land owners banded together, to see that the statutes are enforced. As you are evidently interested in the matter of game protection, like myself, suppose we undertake the matter of arousing the interest of sportsmen and farmers in this movement.

I am a busy person, and my pocketbook is not overflowing with lucre, but I believe that even 2 persons can start the ball rolling, and finally work up one of the most effective bodies of game protectors in the United States. We especially wish land-owning farmers as members. They would be our best and strongest allies. Moreover, they will be the ones most directly benefited, for as quails and like birds are great insect and weed seed destroyers, with the increase of quails the raising of crops would become easier and surer.

After we have worked up a good membership of the League, we can then secure passage of certain laws, something after the following, which should apply to all counties alike:

Specify all kinds of game to be protected. Make open seasons short. Name penalty at so much a head for killing out of season. Prohibit selling game in the State, or shipping it out of State. Have a State gun license, with reasonable fee per annum, money so derived to be used by State in employing a State game and fish commissioner, who would co-operate with League members; or otherwise use the gun license fees to further game and fish protection. Tax non-resident hunters who come into State to hunt, and use money so obtained for same purpose as gun license. Limit number of game birds, animals, or fishes to be killed or caught in any one day or in the open season. Prohibit night hunting of water fowl or any other game with jack-light or reflector.

This rough outline could, of course, be enlarged and improved on, but it about embraces the gist of what we need.

It will be a good idea for us, as a start, to get the names of 2 or more gentlemen in each county in the State and take up the matter with them direct. We can get any quantity of literature from the League to help out. We can write an appeal, and I believe we can enlist the good will of nearly every newspaper in the State to publish free our appeal to farmers and sportsmen. One good way to get the appeal circulated will be to first get names in each county as mentioned, write them a personal letter, with earnest request that they remail the appeal to some other sportsman or farmer in their county, and so on; the endless chain scheme, you understand. This will make the work lighter on the promoters and is really the only effective plan which I can suggest. Of course some will not remail the letters, but I am convinced that a majority would gladly attend to the matter at once. Tennessee should have not less than 5,000 League members. What do you say? P. W. Humphreys.

IMPORTANT MEETING OF MINNESOTA DIVISION.

At a meeting of the executive officers of the Minnesota division of the League of American Sportsmen, a number of important questions were discussed. The

meeting was held at the Commercial club, and was presided over by D. Lange, chief warden of the Minnesota division. State Game and Fish Warden S. F. Fullerton was present, and addressed the meeting. He pointed out the insufficiency of the present appropriation for the game and fish commission to cover the vast territory contained in Minnesota. The present appropriation is $25,000, but in the opinion of those present it should be at least double that amount in order to carry out the work of that department in the manner necessary to protect the game properly. The matter was discussed thoroughly, and plans were made to go before the Legislature and ask for a larger appropriation.

The League is organized in over 40 States and Territories. Its object is the protection of game and fish, and the preservation of the same for the rational enjoyment of all true sportsmen. There are at present 350 members in the Minnesota division. Charles Cristadoro, of St. Paul; Henry Morgan, of Albert Lea, and C. K. Buckeye, of Heron Lake, outlined a plan for increasing the membership in the State, and after some discussion Mr. Cristadoro was appointed a committee of one to carry out the workings of this plan so as to cover every town and county in the State.

The League has already done much effective work for the rational use of the forests and for the protection of song birds.

It was decided to hold the annual fall meeting and banquet in St. Paul the first Friday in November next.

C. C. Andrews, chief fire warden for Minnesota, spoke on Forestry, and said in part:

"The kingdom of Prussia contains 81,000,000 acres of actual land, being the same extent as contained in the 2 States of New York and Minnesota. Of the land in Prussia 21,000,000 acres, being non-agricultural, is in forest, of which 6,000,000 acres are State forest, yielding an annual net revenue of $9,000,000. It is conservative to say that Minnesota has, in scattered localities, 3,000,000 acres of non-agricultural land, which is now idle and useless, but which, if forested, would, in 80 years, yield an annual net revenue of $3,000,000. Unless we Americans are willing to confess that we are inferior to the Germans, we will soon begin to do something effective in forestry. This State should buy up this waste land and gradually put it in forest, but this can not be done unless the people demand that candidates for the Legislature pledge themselves to specific measures of forestry."

In holding this meeting, the Minnesota division has set a good example for other State divisions. All divisions should hold meetings at least once a year, and still better, twice a year. A great deal of interest could be aroused in this way and many members who are willing to work if shown how would get at it if they could be called together and plans adopted. I heartily commend the example of the Minnesota division to all the others.—St. Paul (Minn.) Globe.

NEW CHAPTER IN PENNSYLVANIA.

These are the happiest days of my life, as I have seen my fondest hopes realized, namely, the formation of a chapter of the L. A. S. here. Only a few months ago I told you we were somewhat discouraged in our attempt to form a branch, after working toward that end the past 3 years. Now we have a chapter with more than 100 members, and expect to greatly increase the membership during the present year. Last fall there were only 3 L. A. S. members here. When the illegal turkey hunters were arrested and convicted, we considered it a good time to attempt to organize a branch, and, as you know, we held a meeting for that purpose. Then was when we got our start, and after that members came thick and fast. Great interest has been awakened in the matter of game and fish protection and we are all determined to have the laws strictly enforced. Eight convictions have already been secured by us, and we are now after some fish dynamiters and illegal bass fishermen. I do not think many hunters or fishermen will violate the game laws in this county, in the future, as the League is fast becoming a power, and has already had a deterent effect on all those persons who formerly paid little or no attention to the laws. Our special officers are constantly on the alert and our members, who live in all parts of the county, are keeping their eyes open, making it dangerous for pot hunters and others of that stripe to do their nefarious work.

Harry P. Hays, Hollidaysburg, Pa.

COMMENDATION BY IMPORTANT MAN.

We have evidences every day of the League's good work. At a recent meeting here plans were mapped out for the coming year, including the concerted effort to get a chapter in every village in Minnesota. When that day comes, the State can abolish the Game and Fish Commission and not appropriate any money at all for game or fish protection, because every member of the League will be a warden and it will be dangerous for any man to violate the law. Sam Fullerton, St. Paul, Minn.

Mr. Fullerton is the chief executive agent of the Minnesota Fish and Game Commission, and the best game warden any State ever had. It is a great pleasure to get such a message from such a man.—EDITOR.

FORESTRY.

EDITED BY DR. B. E. FERNOW,

Director of the New York School of Forestry, Cornell University, assisted by Dr. John C. Gifford of the same institution.

It takes thirty years to grow a tree and thirty minutes to cut it down and destroy it.

DISEASES OF TIMBER.

The presence of a dead tree in a forest, or the rotting of structural timber, was a matter of small moment to the past generation, for with such a large supply to draw on, the dead trees could be ignored and the rotten bridge timber could be quickly replaced.

At the present time, however, when we no longer can count on the supply of 50 years ago, it is a matter of concern where the great quantities of timber are to come from in the future, especially when we reflect that the railroads alone use, every year, 100,000,000 ties and the telegraph and telephone companies several million poles. We are not yet face to face with a timber famine, nor are we likely to be there for many years; but it behooves us to consider what is coming, for no country, however large its reserve may be, can look with impunity on the withdrawal of such quantities as indicated above.

How best to conserve the existing supply is the problem with which the forestry of today has to deal. It will develop in several directions. In the first place, it will be the endeavor to cut the existing supply on a more rational and economic basis. A second line of work will deal with the reforesting of denuded areas and the planting of treeless districts; while a third will be directed toward getting an increased service out of the timber after it is cut. Wood, when cut from the tree, decays in the course of time and has to be replaced. By increasing the length of life, so called, of a piece of wood, correspondingly less timber will be cut, and in that way the existing supply will be conserved.

Decay of wood, whether it be in the live tree or the dead wood, is caused by the growth, in the wood, of various low plants called fungi. The fruiting bodies of these fungi are the familiar toadstools, frogstools, punks, or mushrooms found on trees. The punks liberate millions of minute spores, which germinate or sprout in some old knothole, or, in the case of dead timber, on its surface, and grow into the sound wood, thereby causing it to decay. When enough food has been extracted from the wood, one or more new punks form on the outside.

There are many different kinds of fungi growing on trees. Some grow only in the live parts, where they may kill the leaves, the living wood, or the roots. Others grow only in the heartwood of living trees. Some trees are attacked more than others. Forty per cent of the red fir in central Oregon is diseased because of fungus, while the mountain pine of Northern Idaho is so badly diseased that it is often impossible to find a tree entirely free from it. The spores of this fungus are blown about in the forest, and get into wounds caused by the breaking off of branches. Older trees alone are attacked, as it is only in these trees that the branch has formed heart-wood.

One fungus (*Polyporus schweinitzii*) enters coniferous trees through the root. It is the cause of the butt rot of the older trees. The heartwood has turned into a dry, brittle mass, which may extend one to 60 feet up the trunk. Trees affected with this disease usually break off near the ground during storms.

A distinct class of fungi grows only on dead timber. Their spores alight on the outside of a dead tree, and as the fungus grows into the wood it destroys the fiber.

The decay of railway ties, bridge and mine timbers, fence posts, etc., is caused by a number of these fungi. When placed in positions where these timbers are left moist, decay will set in from the outside. This decay makes it necessary to remove timbers frequently, involving the cost of removal as well as the cost of new timber. When one reflects that white oak railway ties last on an average only 8 years, it is easy to understand what enormous destruction these fungi do.

One of the great problems of to-day is to find how the destruction of timber by these fungi may be prevented. The trees in the forest when once attacked can not be saved. In some places where permanent lumbering operations are being carried on it will be possible to cut down all diseased trees, so as to save at least a portion of the tree. This cutting will prevent the formation of fruiting bodies, the spores of which might infect other trees. In Germany, where systematic forestry has been carried on many years, it is difficult to find a diseased tree at this time. As older trees are the ones usually attacked, it follows that when we once know where the danger limit begins, it will be desirable to cut all trees which reach that limit.

The decay of structural timber can be prevented for a considerable period by properly drying lumber before using it. Much is yet to be learned as to the length of time necessary to dry timber so as to increase its length of life.

For many years engineers have tried to find some method for preventing this decay in structural timber by injecting various substances into the wood to kill any fungus which had started to grow in the wood. Those most used are coal-tar, oil, zinc chloride, copper sulphate, and mercuric chloride. Varying degrees of success have been obtained with these materials, depending on the kind of timber used and the climate where the timber was exposed. On some European railroads ties have been made to last 30 years and more. It will be necessary to test all preservatives side by side under similar conditions, in order to determine which one is of the most value. An experiment has been started with this end in view in Southern Texas, where the decay of timber takes place with the greatest rapidity. When a suitable method of impregnation is found, it will be possible to increase the length of life of many timbers several times. The question is one of particular interest to the railroads, as they use such enormous quantities of timber every year. Successful impregnation will mean the utilization of inferior timbers which no one wants now because they decay so fast, such as the tamarack, loblolly pine, lodgepole pine, and swamp oak. When they are preserved, these timbers will be as serviceable as the scarcer and higher priced timbers. This will allow the utilization of vast quantities of timber which are now not used and will admit of a more careful exploitation of the scarcer kinds. Then, again, the trees which are being advocated for tie purposes, the catalpa and eucalyptus, are soft woods. It would be desirable to determine their resisting power to decay; also whether it may not be possible to harden them somewhat. At the present time little is known concerning the rate of decay, the susceptibility of various timbers, the manner of infection of trees, of those problems referred to above. A successful beginning has been made, and it is hoped that with the increased interest in the forests and their products further studies will be possible in the direction of understanding the decaying factors and how to prevent them.—H. von Schrenk, in Forestry and Irrigation.

DESTROYERS OF FORESTS TO BE EXCOMMUNICATED.

In many countries where the necessity for forest preservation has become more pressing and acute than it is at present in Canada, the destruction of the forests is looked on as criminal; but we may perhaps look elsewhere in vain for an example of such a strong deliverance on the subject as that given recently by the Greek Church. National and patriotic as that church is, it takes a deep and proprietary interest in everything that affects the national welfare. A few months ago the Holy Synod of Greece issued an encyclical, which was publicly proclaimed by the government in all parts of the kingdom, in which the utmost wrath of the church was declared on all who indulged in "the unholy practice, abhorred of God," of setting fire to forests; also against all who, knowing others to have been guilty of such deeds, failed to denounce and testify against them, and to aid in every possible way in securing their punishment. All thus guilty through commission or omission are to be "excommunicated from the church, accursed and shut out from forgiveness." "The wrath of God," continues the encyclical, "and the curse of the church be on their heads, and may they never see the success of their labors."

It may be deemed that the Greek Church is unnecessarily autocratic and aggressive in this action, but if it is remembered that Greece has but to lift her eyes Eastward across the sea to look on deserts which were once fruitful and the support of a numerous and prosperous people—when we look with her eyes on her green hills and fair valleys, and realize the desolation and suffering that examples within her own borders also sufficiently demonstrate would follow the sweeping away of the forest covering, we may perhaps realize that a useless destruction of the forest is an act essentially unchristian, and exemplifies the spirit of disregard for others which is undoubtedly deserving of the condemnation of those who speak with authority for the Christian church.—Exchange.

ST. JOHN'S RIVER.

FRANK H. SWEET.

Strange, wayward stream, that leaves the common run,
And scorns the ancient customs of its race,
The waiting sea that circles its birthplace,
Flowing its waters Northward from the sun,
And ending where most streams would have begun;
Up, and not down, in easy, languid grace,
With stately palms mirrored upon its face,
Exacting tribute rivers, one by one;
Fair, mystic stream, that smiles back to the sky,
And breathes such tropic verdure on its way—
Rich plants and flowers that on its borders lie,
And orange groves that stretch and stretch away;
Gray, swaying moss that makes the zephyrs sigh,
And strange, sweet odors through the night and day.

PURE AND IMPURE FOODS.

"What a Man Eats He Is."

Edited by C. F. LANGWORTHY, PH.D.

Author of "On Citraconic, Itaconic and Mesaconic Acids," "Fish as Food," etc.

NUTRITION INVESTIGATIONS.

The subject of food economy, always of vital interest, has acquired increased importance in this country in recent years from the extensive investigations that have been made and are still being prosecuted in connection with and as a part of the work of the U. S. Department of Agriculture and the agricultural experiment stations. There had been considerable investigation of the food of man, as well as studies of the food of domestic animals, before the stations were established. Much of the early experimenting was carried on in connection with physiological investigations or other work connected with the study of medicine. Some of the investigations, however, are directly comparable with more recent work.

The first American investigation on the subject of human nutrition was perhaps that prosecuted by J. R. Young in Philadelphia in 1803. It was entitled "Experimental Inquiry into the Principles of Nutrition and the Digestive Process." The author studied the nutritive value and digestibility of such materials as sugar, gum, beans, and wheat, making experiments with frogs and other small animals. The article summarizes the ideas on human nutrition held at that time.

With the rise of the agricultural experiment stations inquiries into the composition of feeding stuffs and their appropriate use in the nutrition of domestic animals were undertaken, and have since been carried on actively. Later some of the stations undertook similar investigations of the food and nutrition of man. The science of the nutrition of man has so much in common with that of nutrition of animals that a distinction between the 2 is not easily made, and naturally they have been studied together. These researches have been carried on mainly in the physiological and chemical laboratories of universities as well as of experiment stations.

Investigations on the food and nutrition of man include the study of 2 branches of the subject, which, though quite intimately related and both valuable, are nevertheless of importance in different ways. One branch of the subject comprises a study of the chemical composition of different food materials. This is purely analytical, but is a necessary preliminary to the investigation in the other branch of the subject, which comprises researches into the laws of nutrition and the economic and sociological application of the subject. The former has to do with simply the chemistry of food, while the latter has to do with the physics and chemistry of the nutrition of man, together with its economic and sociological application to people of different classes in different places and under different conditions.

A considerable part of the early work in the study of foods in this country was analytical, along the line of the chemical composition of different food materials. A not inconsiderable amount of such work was done between the years 1840 and 1860, most of which, however, is of interest to-day chiefly from a historical standpoint. The greatest accuracy of the work done at that time was in the determination of the elementary composition and the inorganic compounds of food products.

The growth and development of this subject in the United States has an interesting history. Beginnings were made by physicians and other scientific investigators. Much of the work with which the nutrition investigations of the Department of Agriculture are directly connected and out of which they grew was of this nature, and not a little was made possible only by the generosity of private individuals. Then economic institutions and Government scientific departments became interested, and finally the results of the work proved so valuable and useful that Congress made special appropriations for carrying on investigations in nutrition in different places throughout the country.

The particular inquiry on the nutrition of man, which has developed into the cooperative inquiries now being prosecuted in different parts of the country under the auspices of the Department of Agriculture, had its inception in the study of the chemical composition and nutritive economy of food fishes and invertebrates that was undertaken by Prof. W. O. Atwater in 1877, in the chemical laboratory of Wesleyan University, at the instance of Prof. S. F. Baird, Secretary of the Smithsonian Institution and United States Commissioner of Fish and Fisheries.

The work of which Professor Atwater is in charge, is conducted under the auspices of the Office of Experiment Stations of the Department of Agriculture and is carried out largely in coöperation with scientific and educational institutions and philanthropic organizations in different

parts of the country. Extended series of investigations have been prosecuted in Maine, Connecticut, New York, New Jersey, Pennsylvania, Virginia, Vermont, Tennessee, Alabama, Missouri, Indiana, Illinois, Minnesota, North Dakota, California, and New Mexico. The Department of Agriculture has coöperated in New York City with the Association for the Improvement of the Condition of the Poor and the Industrial Christian Alliance in studying the food and nutrition of the people of the congested districts. Similar work has been done with Hull House in Chicago. The Polytechnic Institute and the Tuskegee Institute in Alabama and the Hampton Institute in Virginia have made investigations in their regions, particularly among the negroes in the Black Belt of the South. In other localities experiment stations, colleges, and universities make investigations among people of various classes and conditions of life, including not only dietary studies but other phases of the subject of the nutrition of man.

EDIBLE BIRDS' NESTS

FRANK H. SWEET.

We have all heard of bird's nest soup, that peculiar dish so esteemed by the Chinese. Few of us, however, have any idea of the kind of nest used, where it is to be found or how it is collected.

The edible bird's nest is not a mass of sticks, straws, and feathers, plastered together with clay or mud, such as the robin's nest, for instance. The method of their manufacture is unique. The swallow that builds the nest is provided with glands that secrete a peculiar sticky substance which hardens quickly on exposure to the air. No other bird is so provided, though among insects, as most of us know, the spider is so equipped.

These swallows inhabit the cliffs in the Sunda islands, Ceylon, Borneo, and Java, where the birds live in large caves overlooking the sea, and in colonies of countless thousands build their homes and rear their young.

When about to build the nest the bird's glands, which are situated under the tongue, become greatly swollen. The swallow presses its tongue against the rock that is to serve as the foundation of the nest, and then retreats a short distance, in so doing drawing a glutinous thread out of its mouth. This is woven into a bed of web, by dexterous movements of the bird's head, and the operations of spinning and weaving are continued until the nest is of the required size and shape. The completed nest is about ¼ the size of a hen's egg.

The best quality of nests are white and as translucent as porcelain, and are much prized by oriental epicures. Another species is of a brown color, but is mixed with bits of sticks, feathers, and other foreign substances, which render it almost useless as an article of diet. Probably either species would not prove especially attractive to an American palate.

The natives who gather the nests often live in the larger caves with the swallows. As the openings to these caves are often 60 feet high and between 40 and 50 feet wide, it can be seen that the men do not frighten the birds in the least. The birds do not even seem much disturbed at losing their nests, but keep on building year after year in the most contented fashion.

In gathering the nests 2 men work together. One carries a torch, for the inner recesses of the cave are often totally dark; the other is equipped with a long handled, 4-pronged spear. By means of a light bamboo ladder they ascend to the roof of the cave. The man with the spear selects the nest he wants, spears it, and with a slight twist disengages it from the rock, whole. He passes it down to his companion, who puts it in a basket at his waist. The nests of the best quality are tied with strips of bamboo into bundles, weighing about a pound and a half each, and containing about 40 nests. These bundles are worth about $9 each. The poorer grade of nests are nicely strung together, but are not nearly so valuable.

About $2,500 worth of these nests are gathered every year, 3 crops being taken during the season. Though this occupation of nest gathering has flourished for over 7 generations, or considerably over 100 years, so numerous are the swallows, and so rapidly do they breed, that there seems not the slightest diminution in the number of birds inhabiting these caves.

POMELO OR GRAPE FRUIT.

Pomelo, or grape fruit, as it is more generally known in the Eastern market, is a member of the citrus group, and is closely related to the orange and lemon. It was introduced into the United States many years ago, but has assumed importance only recently. In a recent journal Dr. B. B. Bolton described the fruit in effect as follows:

The pomelo is a native of China and Japan, but is now cultivated in California, Florida, the West Indies, Hawaii and other tropical countries. There are in California some 7,000 trees, a third of which are already bearing, and a much larger number in Florida. The fruit is smooth, round, and of a pale yellow color. It is

larger than the largest orange, and filled with a similar pulp, which contains a large quantity of juice. Owing to its habit of fruiting in clusters it has been called grape fruit. This name is rather misleading, and in California the State Board of Agriculture has decided that "it shall be known as the pomelo, which is botanically correct." Moreover, it should not be confounded with the shaddock, known as *Citrus amantium decuman;* while the pomelo is *C. a. pomelanus.*

Several varieties of pomelo are grown, and the purchaser should reject those which are too acid or lack the peculiar bitter-sweet flavor which is characteristic of this fruit. Pomelos should contain 2 per cent or less citric acid, while lemons contain 5 to 7 per cent. According to analysis made in California, pomelo juice of desirable quality contains 10 per cent total solids and 6.8 per cent sugar. The pomelo may be used for preparing refreshing summer drinks in the same way that lemons are used for lemonade.

The pomelo is recommended as an aid to weak digestion. For this purpose it should be cut in 2 crosswise and a little sugar added. After remaining 5 to 10 hours in the refrigerator the juice should be squeezed out and sipped a half an hour before breakfast or dinner.

An appetizing jelly or marmalade may be made from the pomelo as follows:

Cut large fruit, including the rind, into thin slices and remove the seeds. Add a quart of cold water to each pound of cut fruit. After it has stood 24 hours boil it 20 minutes, or until the skin is tender. Let it again stand 24 hours, then add a pint of sugar to each pound of cooked fruit, and boil until it jells. This should give a clear, amber jelly, possessing the delicate, bitter flavor of the fruit.

The pomelo is in greatest demand from January to April, but as the season advances the fruit improves in flavor, and when perfectly ripe may be eaten without sugar. In this ripe fruit the peculiar bitter-sweet flavor is most pronounced.

Pomelo is an attractive addition to the diet. It has been claimed that the bitter principle contained in it has medicinal properties, being useful as a tonic and for warding off fever in much the same way as quinine. The chemical nature of this bitter principle is not known. Other medicinal properties have been claimed for the pomelo, but are, as far as can be learned, chiefly matters of opinion.

CALIFORNIA INDIANS AND HORSE CHESTNUTS.

The California buckeye or horse chestnut, *Aesculus californica,* is a more or less scrubby tree 10 to 40 feet in height, which bears a great abundance of clusters of fragrant white flowers from May to July. These in autumn are partially replaced by large attractive fruits one to 2½ inches in diameter. The leaves usually drop off the tree a month or 2 after flowering time, and thus expose the fruit, which often hangs on until the beginning of winter. The translation of the Pomo Indians of the native name for the horse chestnut is "fruit tree," an appropriate name, since without exception all Indian tribes eat the fruit in considerable quantity even at the present time.

Even when quite civilized, the Indians, according to Dr. V. K. Chesnut, who has recently studied the subject, regard the horse chestnut with favor as food. When raw, however, it is commonly regarded as poisonous, and recognized by at least one of the tribes near Ukiah as a means of committing suicide. The fruit is undoubtedly poisonous in the fresh state. Dr. Chesnut found 2 or 3 methods used in preparing it for food, both consisting essentially in roasting and then washing out the poison. The buckeyes are placed in a hole lined with rock and willow leaves in which a fire has previously been built; more willow leaves are added and the whole is covered with hot ashes and dirt and allowed to remain one to 8 or 10 hours. The fruit then has the consistency of boiled potatoes. It may be either sliced, placed in a basket and soaked in running water 2 to 4 or 5 days, depending on the thinness of the slices, or mashed and rubbed into a paste with water, when the red-brown skin floats and is removed from the surface, and placed to soak one to 10 hours in a hole in the sand, as in the case of acorns, a wide and deep hole being used because the water drains off quite slowly. After this process the resultant mass, which has the consistency of gravy, is ready for consumption. It is frequently eaten cold and without salt. Buckeyes decay or sprout rapidly, and are therefore not preserved for use for long periods. After sprouting the taste is said to be disagreeable. The buckeye fruit is also a favorite food for squirrels, but hogs will not eat it. The leaves or young shoots are probably used to a slight extent by the Yuki and Concow Indians to poison fish, but for this purpose they are inferior even to blue curls, *Trichostema lanceolatum.*

He: You are willing to admit, then, that you are afraid to marry me because I may not be able to support you?

She: Well, I don't go so far as that, because fear implies a possibility of the thing happening.—Exchange.

PUBLISHER'S NOTES.

All big game hunters will be glad to learn that the Winchester Repeating Arms Co. has evolved a new cartridge for the '95 model box magazine repeating rifle. This new cartridge is of 35 caliber and is said to be the most powerful, at both long and short ranges, ever offered. It is loaded with a soft point metal jacketed bullet, and develops a muzzle velocity of 2,200 feet a second. This means a muzzle energy of 2,685 foot pounds. At 15 feet from the muzzle this new bullet penerates 15 pine boards each 7/8 of an inch thick. This indicates a tremendous killing power for the new cartridge, and it is sure to become popular at once.

This Company has also recently put on the market a line of high velocity, low pressure cartridges for 45-70, 45-90 and 50-110 Winchester rifles. These new cartridges are loaded with smokeless powder and soft point metal patched bullets. The cartridges are specially designed for big game hunting at distances up to 200 yards. The company has made a careful series of tests of this new ammunition as to velocity, penetration and trajectory. The result has been tabulated and printed and copies of these tables can be had by addressing the Winchester Company at New Haven. When you write please mention RECREATION.

Skagway, Alaska.

Messrs. H. J. Putman & Co.,
Minneapolis, Minn.

Gentlemen: It is but right I should let you know your No. 678 is more than I asked for or expected in the way of a boot. It was not only as comfortable as an old shoe from the beginning, but it is the happy combination of minimum weight and maximum staying qualities. Should anyone ask me where to buy the best boot for hunting, fishing, climbing mountains or knocking about at out of door railroad work in all kinds of weather, I should certainly advise him to make his wants known to you. Few if any who have not summered and wintered in Alaska can understand how much "all kinds of weather" means, especially when it includes conditions under foot as well as overhead.

Yours truly,
J. R. Van Cleve, Master Mechanic,
White Pass and Yukon Route.

The Polk Miller Drug Co., Richmond, Va., makers of the Sergeant dog remedies, have been running ½ page ads in RECREATION during the past year, and have recently sent me a voluntary order for 12 full pages, beginning with this issue of RECREATION. This proves 2 important claims: First, that RECREATION is a good advertising medium and has proved such in the case of the Polk Miller Co. Second, that the Sergeant remedies are real remedies. If they were not, dog men would have found it out long ago and the sale of them, instead of growing as it has grown from year to year, would have ceased entirely, in spite of liberal advertising. Moral: If you have a good dog, order a full line of the Sergeant remedies and keep them on hand for emergencies.

Eastern sportsmen are every year going in larger numbers to the Northwest for their fall shooting. The Great Northern reports that the demand this year for their "Shooting and Fishing Guide" is greater than ever before. Any sportsman, who contemplates a trip to the Northwest, or who wishes to keep posted on its attractive game fields, should send 6c. in stamps to F. I. Whitney for copy of his 1902 edition of "Shooting and Fishing along the line of the Great Northern Railway."

F. C. Huyck & Sons, Albany, New York, makers of the famous Kenwood sleeping bag, are again advertising in RECREATION, and I again cheerfully recommend these people and their goods to everybody. I know many people who are using Kenwood bags and have never yet heard an adverse criticism of them. I therefore advise all readers of RECREATION who have any idea of buying sleeping bags to write these people for descriptive circular. When you do so please mention RECREATION.

The Union Metallic Cartridge Company has issued a book entitled, "Shot Gun Ammunition," which illustrates and describes the various goods manufactured by this company, and which gives prices thereof. This is a most valuable work for reference and every shot gun shooter in the country should have a copy. When you write for it mention RECREATION.

The firm of Jespersen & Hines, formerly of 10 Park Place, New York, has discontinued business and dissolved. Mr. H. L. Jespersen, who was the head of the firm, is now with R. H. Macy & Co., Sixth Avenue and 14th Street, New York, where correspondence will reach him promptly.

ODELL AN ENEMY TO GAME PROTECTION

Here is a copy of a letter from Governor Odell, which will prove interesting reading to sportsmen at this time:

STATE OF NEW YORK
EXECUTIVE CHAMBER
ALBANY

Newburgh, N. Y., July 3, 1901.

Mr. G. O. Shields,

23 West 24th St., New York City.

Dear Sir:

I am in receipt of your letter of the 1st inst. concerning the New York City game violation cases. I had a conference with the members of the Forest, Fish and Game Commission today, and the matter is to be taken up and pushed energetically at once. You will have no fault to find with their attitude.

Yours very truly,

B. B. Odell

It will be remembered that in July, 1901, State Game Warden J. E. Overton, of Hempstead, L. I., secured a search warrant, entered the storage warehouse of the Arctic Freezing Company, of this city, and seized over 55,000 pieces of game which were held there in violation of State law.

As a result of the conference referred to by the Governor, the firm of Black, Olcott, Gruber & Bonynge was employed

by the State to prosecute this case, but, notwithstanding the promise made by Governor Odell in the above letter, no action has been taken against the Arctic Freezing Company in this case.

On the contrary, Governor Odell had a bill prepared and passed by the last session of the New York Legislature providing for the keeping of game of any and all kinds, throughout the close season, under bond.

The passage of this law completely nullifies the case against the Arctic Freezing Company, in which the State stood to recover nearly $2,000,000. It is now impossible to get a judgment for $1. Every lawyer knows that no court or jury can be induced to convict a man, or a firm, or a company, of an offense against a law which may meantime have been repealed.

Another charge which the sportsmen of the State of New York have against Governor Odell is that he vetoed a bill which they induced the last Legislature to pass, prohibiting the sale of ruffed grouse. Thousands of the best sportsmen in the State worked all winter to secure the passage of that bill. Originally it included woodcock and quails. These were stricken from the bill, by way of compromise and under protest of the men who were working for the bill. We were told by members of the Assembly and of the Senate that it would be impossible to pass the bill as originally drafted, but that if we consented to the elimination of the words "quails and woodcock" we could pass the bill as to ruffed grouse, and that the Governor would sign it. We accepted these pledges on the theory that half a loaf is better than no bread. We pushed the bill through and Governor Odell vetoed it.

The League of American Sportsmen asked for hearings before the Governor on both of these bills, and both requests were denied. Furthermore, we asked for hearings before the Fish and Game Committees of the Senate, and of the Assembly, on the cold storage bill and were denied there.

It is now time for the sportsmen of the State of New York to look elsewhere for help in protecting the birds and the wild animals of this State. The Republican party, through Governor Odell, has shown that it is opposed to the best interests of this great cause. The League of American Sportsmen is not a political organization in any sense, and we have hoped it might be able to keep out of politics at all times. It does not go into the present fight as a political organization, but as simply what it is: A game protective organization. I do not know the political preferences of a dozen members of the League. Neither do I care to know. I do know, however, that all of them are game protectionists, and while I do not speak for all I have no doubt 90 per cent of the New York members will cast their votes and use their influence in the present campaign against Governor Odell. At this writing we have no pledges from the Democratic party as to what it will do for the game and the song birds of the State if placed in power; but we are certain these wild creatures could not fare worse at the hands of any party than they have fared during the past 2 years, under the administration of B. B. Odell. We shall do everything in our power to prevent his reelection.

A GREAT GAME PRESERVE.

Mr. L. A. Tillinghast, of 275 Westminster street, Providence, Rhode Island, is organizing a club of sportsmen with a view to buying some 20,000 acres of land lying 20 or 25 miles from that city. He requested me to carry an advertisement soliciting subscriptions to the proposed club. In accordance with my rule never to endorse any such enterprise without first knowing its value, I visited the property which Mr. Tillinghast proposes to buy for the use of the club. I drove over a large portion of it, examined it carefully, and can say without hesitation that it is admirably adapted to the purpose named.

The tract as outlined measures about 5 miles in width by 7 miles in length. There are within its limits 5 natural trout streams and 16 small lakes, or ponds. Eleven of these ponds and all the streams have always yielded fair numbers of trout. The brooks aggregate in length 15 to 20 miles. It would take a man 2 days to fish the longest stream, and at least one day each to fish the others. One of the ponds is about a mile long and half a mile wide. This and one of the others are well stocked with pickerel and black bass. The tract includes about 50 old farms, several of which have been abandoned, and most of the others are producing so poorly that their owners are tired of paying taxes on them and will be glad to sell them at almost any price they can get. Mr. Tillinghast estimates that the entire tract of about 20,000 acres can be bought at an average price of $3 an acre. Some of these farms have houses on them that cost $3,000 to $5,000 each, and that are as good to-day as when they were built. Others of the houses were built 50 to 100 years ago, and are now almost ready to tumble down.

On the other hand, there are large areas of forest land that have never been cleared. It has all been logged or cut off for timber, fuel, railway ties, telegraph poles, or fence posts, at various times. Some of the pine lands have been logged 3 times

within the lives of present owners, and a fourth crop of good, marketable pine could now be taken from the tract at any time. I am conservative in saying that $10,000 worth of marketable timber could be cut from this tract every year for the next 20 years, and if the cutting were done on scientific principles the young trees would have all the better chance to grow. A skilled forester could take charge of this tract of land and make it pay a handsome profit every year in this way, and at the end of 20 years the standing timber would be worth probably 10 times what the present stand is worth. A great deal of the uncultivated land is densely covered with underbrush, affording fine cover and abundant food for deer, elk and moose. It is a natural grouse country, and, in fact, deer were abundant in Rhode Island in the early history of the State. As many people know, they are becoming plentiful in Connecticut within 20 to 50 miles of this land, and if rigidly protected they would undoubtedly soon become abundant again in the timbered portions of Rhode Island.

It is the intention of the promoters of this club to fence the entire tract with a wire fence 8 feet high, capable of holding deer, elk, moose and buffalo; to buy a few head of each of these and perhaps other species of wild animals, and turn them in. It is also proposed to stock the entire tract with quails, English and Mongolian pheasants, wild turkeys, and perhaps other game birds. The streams and lake will be stocked with trout and black bass as fast as possible. The old farms offer fine opportunities for golf and polo grounds, and these, together with facilities for other outdoor games, will be provided. Some of the larger ponds will afford ample opportunities for boating and canoeing. A commodious club house will be built in a great pine forest overlooking a large portion of the club's lands.

The membership fee has been placed at $2,000. This will insure a select and high class membership. The club will be officered by men of well known business ability and integrity. The proposition is backed by the Union Trust Company of Providence, Rhode Island, to which membership fees are to be paid.

The railway station near the club grounds can be reached from Providence in one hour and 10 minutes, and a drive of 3 miles will land the member at the club house. It is, therefore, possible for a man to go from New York city to the club house in 6 hours. Or, better still, you can take a Providence line steamer here at 6 o'clock in the evening, have a comfortable night's rest, and be on the club grounds the next morning at 8.30. The region in question is as healthful as could be found anywhere. Malaria is unknown, and the visitor there is strangely impressed by meeting many men and women whose ages vary from 80 to 90 years. I can see no reason why this should not become one of the most desirable and successful country clubs in the United States. It has all the natural conditions that could be desired. It only remains to put the property in good condition, to stock the land with game and the waters with game fishes, in order to make that country a Paradise for men, women and children.

A VALUABLE OFFICER.

Captain Frank A. Barton, of the Third Cavalry, who was recently detailed as Acting Superintendent of the Sequoia and General Grant National Parks, in California, has proved a genuine surprise to certain people who have had occasion to visit those parks. Captain Barton is a soldier by education and training and he realizes that orders are not issued for fun, but that they are to be obeyed. For instance, in one case, where a Mr. E. E. Cerf, of San Francisco, went into the park with 2 guns and without complying with the Government regulations as to obtaining a permit for same, and having them sealed, Captain Barton had the guns seized and held according to his orders. After Mr. Cerf returned home he made a strong appeal to the Captain to have the guns returned to him, stating that they were rented guns and that for every day they were held the expense thereon was increased. Captain Barton replied that was exactly what he wished; that his orders were to hold any guns seized until the end of the season, and that these would be returned to Mr. Cerf in the fall at the close of the tourist season.

In another case a party consisting of E. W. and I. N. Linforth and Isaac Flagg, of Berkeley, California, camped in the Sequoia National Park the night of June 26. The next morning they left their camp without extinguishing their fire. This was found by Forest Ranger Ernest Britten the following day, still burning, and was extinguished by him. Captain Barton promptly detailed Lieutenant G. B. Comly, of the Third Cavalry, with 3 men, to follow these campers, arrest them and take them back to headquarters. I have not learned the result of the pursuit, but it is safe to assume that these careless campers were dealt with as they deserved..

Monday, August 4, W. S. Johnson, of San Jose, and Anthony Sawyer, of Orosi, each killed a deer in the Sequoia Park in violation of the Government rules. These men were arrested, their guns confiscated, and they and their companions promptly expelled from the park. L. L. Ellis, of Vi-

salia, was acting as guide for this party, under a permit issued by the Superintendent of the park. While it does not appear that he was present when the deer were killed, yet he evidently connived at the unlawful act, and his permit as a guide was therefore promptly revoked.

Captain Barton is a member of the L. A. S., and all the other members will be proud to know that they have a brother in a position where he can do so much for the protection of game and of forests.

SAVE THE SQUIRRELS.

(From the Boston Daily Globe.)

The wanton destruction of small game in this country has already made graveyards of the woods in many sections. The protest has become so loud that even where the game laws do not forbid the shooting of small birds and squirrels, boys who amuse themselves in that way are frequently reprimanded, and grown men who do it are generally frowned on as being engaged in small business.

Even sedate people have nothing against President Roosevelt's strenuous ways, and when he engages in killing mountain lions and other savage carnivora, it may be setting a good example of courage and hardihood for the rising generation; but when he encourages his children to go into the woods and kill and torture harmless squirrels the head of the nation is setting a bad example to the youth of the country. Here is a sample from an Oyster Bay dispatch:

"A little later Teddy and his cousins came from the woods with their guns. They had been out after squirrels, and each boy had 2. The boys are good shots. They would not think it sportsmenlike to hunt with shot guns. They had small bore rifles, and the trick was to 'bark' the squirrel. The boys would aim to strike just under the game, knocking it from a limb, stunning and killing it without tearing the flesh. It takes a good shot to do the trick."

If a boy should indulge in such "tricks" in Franklin park he would be denounced as cruel and arrested if caught. The fact that the park is a game preserve makes no difference as to the principle. Let the President bring up his boys to strenuous recreation, if he will, but he owes something to the youth of the nation.

A GUESSING MATCH.

We had a potpie at the last dinner of the Camp Fire Club and asked the members to guess what it was made of. Here are a few of the guesses:

Mud Turtle, Jack Rabbit, Kangaroo Rat, Owl, Coon, Possum, Prairie Dog, Tammany Tiger, Boarding House Goose, A small bird at least 6 months old, with no name; Side Hill Gouger, habitat, Yellowstone Park; Ornithoryncus, or some kind of cuss.

Easy as rolling off a log,
If it isn't cat, I'm sure it's dog.

"Hair," "Hair!" Call the dog! for it has but one scent and——— that's a bad one.

Of all the pies I ever tried
This surely takes the cake;
It looks like hog or crow or dog,
It tastes like rattlesnake.

An elephant and a kangaroo,
A wild gazelle from Timbuctoo,
A porcupine of rosy hue
And a little piece of young goo-goo.

And after all it was only Belgian hare.

ADDITIONAL FOREST RESERVES.

President Roosevelt has recently issued 2 proclamations extending the Yellowstone and the Teton forest reserves to such an extent as to add about 6,000,000 acres to these areas as originally created. Mr. A. A. Anderson, one of the Vice-Presidents of the L. A. S., has been appointed superintendent of both these reserves. We may, therefore, confidently expect that the game laws of the State of Wyoming, within which these tracts are located, will be rigidly enforced. This is an important step in the preservation of the big game of the Yellowstone country, as these tracts now include a large portion of the winter ranges of the elk, deer, antelope and mountain sheep. That curse of the West, the sheepman, will no longer be allowed to graze his flocks within this territory, and the game will have a much better show for its existence, during the long hard winters, than heretofore. President Roosevelt is entitled to the gratitude of every sportsman in the United States for his prompt and decisive action in this matter.

W. F. Burrell, a wealthy business man of Portland, Oregon, was recently arrested for having prairie chickens in his charge in close season. He was taken before Justice Hogue, of Portland, where he pleaded guilty to the charge, and was fined $15, the smallest penalty allowed by the law. Justice Hogue, for some unknown reason, remitted $10 of this fine. If the truth could be known, the fact would probably be revealed that Mr. Burrell's wealth influenced the judge in rendering his decision. It is safe to assume that if some poor working man had been haled before Justice Hogue on a similar charge he would have

been fined to the limit and sent to jail if unable to pay. Then the judge would probably have pointed with pride to the record as showing the fearless manner in which he discharged his duties. Justice Hogue should feel ashamed of the record in the Burrell case, and it is to be hoped that when his present term of office expires the real sportsmen of Portland will see that he is retired to private life.

The Supervisors of Santa Cruz county, Cal., are apparently level headed men. They have adopted a stringent amendment to their county game laws, one section of which makes it a misdemeanor to kill any song bird at any time of the year. Another section provides that no angler may take more than 50 trout of one variety in one day. This provision is entirely too liberal, but it is a step in the right direction. I trust the Supervisors may amend that section still further, so as to limit the catch for one man for a day to 20 trout, of all varieties. Still another section of the new law prohibits the killing of any species of tree squirrel at any time. Here is an example that might well be followed by the law makers of all States.

The sportsmen in the State of Idaho should all begin now to train up their Legislators in the way they should go. It is a shame that the good law which Idaho had on its statute books requiring the screening of the heads of irrigating ditches should ever have been repealed. The friends of game and fish protection in that State should see to it that this law is reenacted at the earliest possible opportunity and it is only by personal solicitation and earnest admonitions made upon law makers that such action may be brought about. Let every sportsman do his duty.

The North Adams Gun Club has been organized at the city of that name in Massachusetts, with officers as follows: President, E. H. Pratt; Vice-President, Albert Hawkins; Secreary, L. W. Graves; Treasurer, F. J. McHale; Captain trap team, A. J. Adams; Captain rifle team, Charles Hansel. The club has leased shooting grounds and has set up 3 traps and a 200 yard rifle range. The club starts off with 40 members and expects to enroll more in the near future.

A fruit grower in Southern New Hampshire, noted for the fine character of his fruit, was asked what means he took to protect his orchard from injury. He replied, the only thing he did was to put boards around the eaves of his barn where the birds could make their nests; that a colony of 500 swallows kept his orchard clear of insects.

Will the good friend who wrote me a story entitled "Hunting Elk," which treats of his experiences on Mad creek, kindly send me his name and address?

The parrot escaped through a window and perched in a tree. The owner's efforts to capture it, even with a butterfly net, were in vain. He stood at the bottom of the tree swearing at the bird, when an Irishman came along.

"What is the matter?" demanded Pat.

"I can't catch that darned bird," said the man, "and here is a dollar for the man who can."

"I am the man," cried Pat, and he started up the tree.

As he climbed from branch to branch the parrot did the same. Finally they neared the top, and the branches began to wabble dangerously. The parrot was moved to speech.

"What the devil do you want?" it demanded.

"I beg your pardon," cried Pat, already half way down the tree. "I thought you was a bird."—New York Tribune.

She: "Jack! darling! I made you believe I wasn't in earnest when I told you I didn't mean what I said. Didn't I?"

"I believe so."

"Well! I take it all back."—Life.

RECREATION is getting better each month. It is a fine magazine for $1, and is worth 3 other magazines.

Arthur J. Thompson, Pasadena, Cal.

I have little trouble in securing subscribers to RECREATION, as they all say it is a bird.

J. S. Kittell, Troy, N. Y.

RECREATION is the best sportsmen's periodical on earth, and grows better every month.

M. P. Edy, Clarenceville. P. Q.

I value RECREATION more highly than any other magazine I read.

B. F. Kizer, Stanberry, Mo.

I think your magazine the best of its kind. W. M. Rickert, Waterloo, Iowa.

RECREATION is O. K. Simply delicious. Fred Schaible, Lansing, Mich.

RECREATION is the best magazine out.

Frank G. Houghton, Leominster, Mass.

Purity is Free

Schlitz beer costs the same as common beer, so that purity is free to you.

Yet purity costs us as much as the beer itself.

It requires absolute cleanliness. It compels us to filter even the air that cools the beer. Then we carefully filter the beer, and sterilize every bottle after it is sealed.

And the beer must be aged for months in a temperature of 34 degrees, for otherwise the beer would cause biliousness.

Don't let your dealer decide which beer you shall drink, for he makes most on the common kinds.

Ask for Schlitz, for purity means healthfulness, yet that purity is free.

Not a beverage known to man is more healthful than beer, if it's pure.

Barley-malt and hops—a half-digested food and a tonic.

Your doctor says the weak must have it. Why not the strong?

But don't drink a germ-laden beer, when Schlitz is sold everywhere.

Ask for the brewery bottling.

AN INDIAN'S INGENUITY.

November 1st, '99, J. D. Finn, Levi Fulton and I, all hunting enthusiasts, left for a week's duck shooting in Northern Minnesota. Although somewhat late in the season the ducks had lingered about the numerous lakes and marshes of that region, and we congratulated ourselves on the prospects of good sport.

Our first stop was made at Grand Rapids where we secured supplies and hired an Indian guide. The next morning after continuing our journey about 100 miles Northwest, on the line of the Great Northern railway, we decided to stop and prospect for duck haunts.

On the advice of our guide we followed a trail through the woods to an opening 3 or 4 miles across. There before our eyes, on what appeared a great meadow, were thousands of mallards. When we expressed surprise at seeing so many ducks where apparently there was no water our Indian said:

"Plenty water. Come, I show you."

We went to the edge of the meadow, and Mr. Fulton, at the request of the Indian, started to walk toward the ducks, some 100 rods distant. He had scarcely gone a yard when in he went to his waist, and came back to us dripping wet. Our guide told us that the Great Northern railway, in building its line through that territory, had found it necessary to drain one of the lakes. What looked to us like a meadow was in fact the bottom of that lake, covered with a uniform growth of moss, grass, etc., completely hiding the few feet of water underneath. How we were to reach the birds out in the middle was a problem. Mr. Finn thought he could drive his light canvas boat through the moss, but after working out a few rods gave it up and returned. To relieve his feelings he shot both barrels of his gun into the air and watched for some stir among the distant mallards. Some thousands of them rose, circled and dropped back again on their feeding ground.

We walked half way around the lake bottom trying to find some way of getting within shooting distance, but none could be found and we eventually came back to where we had left our guide. It did not take us long to discover that he had some notion in his head. He had collected a large quantity of pine and hemlock foliage, several hundred straight sticks about 6 feet long, and a big pile of wire grass. In answer to our questions he simply pointed toward the ducks and resumed his work. Leaving him at his work the other 3 members of the party took a little trip through the woods in the hope of getting a shot at a grouse. After spending about 4 hours in that way we returned and found our guide had completed a thing looking much like a big hogshead with the ends knocked out. Running around the inside, like the hoops of a barrel, were 5 or 6 strips of birch about 5 inches thick, and to those were laced the small sticks, the whole outside being covered by a thick and strong matting of grass and moss.

He started rolling this wheel toward the edge of the lake bottom and motioned for us to come along. Then he stepped inside the wheel and, to our astonishment, started the thing rolling toward the middle of the lake. He went only a short distance, however, and then returned, telling one of us to get in with him. Taking his gun and a number of shells Mr. Fulton entered with the guide, and in less than half an hour he was deposited on a bog near the middle of the bottom. The ducks had risen in swarms at the approach of the curious vehicle, many of them flying over to the farther side. With some brush which the Indian had the foresight to carry with him Mr. Fulton made a blind and settled down for a chance shot.

The guide returned, and conveyed me to another part of the feeding ground, where another blind was made. Mr. Finn was next carried a considerable distance in the same way and deposited on a bog.

The Indian had so constructed his wheel that a man could roll it from the inside by leaning or climbing on one side, much as a dog would turn an old fashioned treadmill. The thick covering of moss and grass enabled the wheel to roll over the mass of vegetable matter, without sinking in the water. When Mr. Finn had been left to build his blind the guide rolled his strange wheel toward the distant ducks, approaching them on a side that would turn them in the direction of Mr. Fulton. He opened with 6 shots from his pump gun. The ducks came to me and I fired; then Mr. Finn's turn came. The Indian kept the birds moving and we banged away all the afternoon. It was the most enjoyable sport I ever had.

We shot until dark, and bagged 46 big mallards, 7 teal and one canvas back that afternoon. The next day we went through the same performance, but the ducks were more wary and avoided the blinds with more persistency. However, we were well repaid for our ride the second day, securing 48 mallards, 8 teal and 3 bluebills.

The proprietor of a German menagerie keeps caged together a lion, a tiger, a wolf and a lamb, which he labels "The Happy Family." When asked confidentially how long these animals had lived together, he answered:

"Ten months, but the lamb has to be renewed occasionally."—Philadelphia Times.

"Did you get your lost dog back when you advertised?"

"No, but I got 3 better ones."—Cleveland Plain Dealer.

THE EQUITABLE

"STRONGEST IN THE WORLD"

J.W. ALEXANDER
PRESIDENT

J.H.HYDE
VICE PRESIDENT

"GREAT OAKS FROM LITTLE ACORNS GROW"

and great fortunes from little savings grow.

For example: Take an Endowment.

It gives protection to your family *at once*---- if you die. Helps provide for your own future---- if you live---- *and about 15 cents a day will pay for an Endowment for $1,000---- 30 dollars a day for $200,000* ---- or between amounts in proportion.

Here is the result, in 1902, of Endowment No. 240,125, for $10,000, taken out twenty years ago:

Cash.....$14,934.00

This is a return of all premiums paid, with $5,140.00 in addition, to say nothing of the twenty years protection of assurance.

Vacancies in every State for men of energy and character to act as representatives.

Apply to GAGE E. TARBELL, 2nd Vice President.

Send this coupon for particulars of such a policy issued at your age.

THE EQUITABLE SOCIETY, 120 Broadway, New York. Dept. No 16

Please send me information regarding an Endowment for

$.....if issued at.....years of age.

Name.....

Address.....

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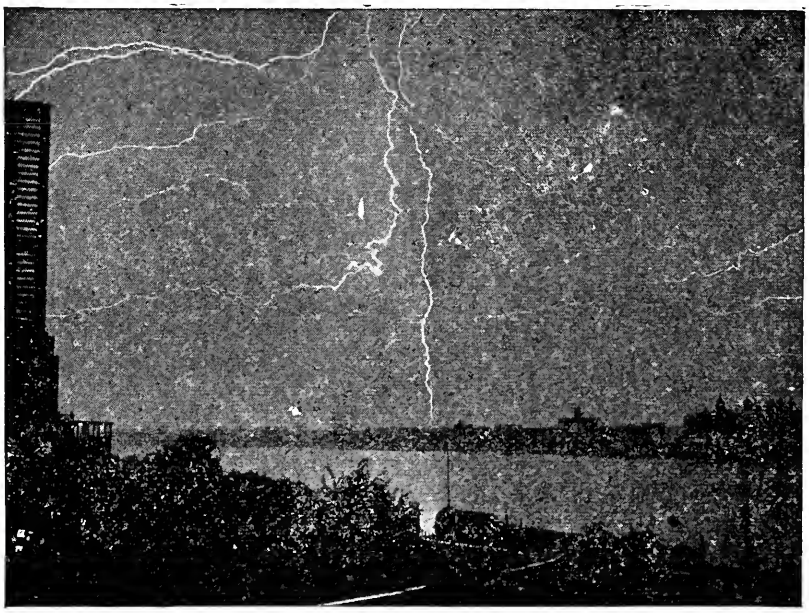
VERASTIGMAT *f*-6.8

(True Stigmat)



"QUICK AS LIGHTNING"

There are lenses better known than ours, but none better made. Some cover larger advertising spaces than ours, but it's the plate you want to cover, and the VERASTIGMAT will do it for you.

Perhaps you doubt it; perhaps you think we're exaggerating. We don't blame you if you do—it's the fashion to exaggerate in such matters. But here's our motto: "Try a VERASTIGMAT against your favorite. If it doesn't suit, send it back."

The VERASTIGMAT BOOKLET will tell you more than we have space to print, or you time to read here. A postal will bring it to you.

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Made in Three Series F. 7.5. F. 6.3. and F.5.

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AMATEUR PHOTOGRAPHY.

"For sport the lens is better than the gun."

I wish to make this department of the utmost use to amateurs. I shall, therefore, be glad to answer any questions and to print any items sent me by practical amateurs relating to their experience in photography.

7th ANNUAL COMPETITION.

RECREATION has conducted 6 amateur photographic competitions, all of which have been eminently successful. The 7th opened April 1st, 1902, and will close November 30th, 1902.

Following is a list of prizes to be awarded:

First prize: A Long Focus Korona Camera 5 x 7, made by the Gundlach Optical Co., Rochester, N. Y., fitted with a Turner-Reich Anastigmat Lens, and listed at $85.

Second prize: A No. 3 Folding Pocket Kodak, made by the Eastman Kodak Co., Rochester, N. Y., fitted with a Bausch & Lomb Lens Plastigmat Unicum Shutter, and listed at $61.50.

Third prize: An Al-Vista-Panoramic Camera, made by the Multiscope and Film Co., Burlington, Wis., and listed at $40.

Fourth prize: A Wizard C Camera, 4 x 5, made by the Manhattan Optical Co., Cresskill, N. J., with B. & L. Iris Diaphragm and Leather Carrying Case: listed at $33.

Fifth prize: A Waterproof Wall Tent, 12 x 16, made by D. T. Abercrombie & Co., New York, and Listed at $32.

Sixth prize: A Gold Hunting Case Watch, listed at $50.

Seventh prize: A Tourist Hawkeye Camera, 4 x 5, and made by the Blair Camera Co., Rochester, N. Y., and listed at $15.

Eighth prize: A Bristol Steel Fishing Rod, made by the Horton Mfg. Co., Bristol, Conn., and listed at $6.

The 10 next best pictures will each be awarded one dozen 8 x 10 Carbutt Plates, made by the Carbutt Dry Plate Co., Wayne Junction, Philadelphia, Pa.

The 10 next best pictures will each be awarded one dozen 5 x 7 Carbutt Plates.

The 10 next best pictures will each be awarded one dozen 4 x 5 Carbutt Plates.

A special prize: A Goerz Binocular Field Glass, listed at $74.25, will be given for the best picture of a live wild animal.

Subjects are limited to wild animals, birds, fishes, camp scenes, and to figures or groups of persons, or animals, representing in a truthful manner shooting, fishing, amateur photography, bicycling, sailing or other form of outdoor or indoor sport or recreation. Awards to be made by 3 judges, none of whom shall be competitors.

Conditions: Contestants must submit 2 mounted prints, either silver, bromide, platinum or carbon, of each subject, which, as well as the negative, shall become the property of RECREATION. Negatives not to be sent unless called for.

In submitting pictures, please write simply your full name and address on the back of each, and number such prints as you may send, 1, 2, 3, etc. Then in a letter addressed Photographic Editor, RECREATION, say, for instance:

No. 1 is entitled —— ——.
Made with a —— —— camera.
—— —— lens.
On a —— —— plate.
Printed on —— —— paper.
Length of exposure, —— ——.

Then add any further information you may deem of interest to the judges, or to other amateur photographers. Same as to Nos. 2, 3, etc.

This is necessary in order to save postage. In all cases where more than the name and address of the sender and serial number of picture are written on the back of prints I am required to pay letter postage here. I have paid as high as $2.50 on a single package of a dozen pictures, in addition to that prepaid by the sender, on account of too much writing on the prints.

Any number of subjects may be submitted.

Pictures that may have been published elsewhere, or that may have been entered in any other competition, not available. No entry fee charged.

Don't let people who pose for you look at the camera. Occupy them in some other way. Many otherwise fine pictures have failed to win in the former competitions because the makers did not heed this warning.

HOME-MADE PHOTOGRAPHIC PAPERS.

Photographic printing papers can be easily made at home; all that is necessary being to coat paper with a sensitive salt. Silver nitrate can thus be used of the following strength:

Silver nitrate .....60 grains.
Water .....1 ounce.

Wood, cloth, leather, the human skin, and almost every organic substance, if coated with such a solution, will be rendered sensitive to light, and therefore pictures can be produced on them. Such pictures, however, are of necessity dull in appearance, owing to the sensitive salt sinking into the body of the paper. To overcome this defect, use a substratum, or size, to fill the pores of the paper, thus keeping the image on the surface, and obtaining brilliancy and transparency. The preparation of photographic papers thus falls under 3 heads: The paper, the substratum or size, and the sensitizer.

Almost any paper will serve for photographic purposes, only those being useless which contain substances liable to reduce the sensitive salt, or render it insensitive. Note paper is generally sufficiently pure; also the various drawing papers, such as Whatman's. A paper having a fine grain will yield the best results, and the smoother it is, the less likely are the prints to be flat and muddy. For broad effects, and

when fine detail is not desired, a rough drawing paper will give artistic and sketchy impressions.

Many organic substances have, at different times, been employed as sizes for photographic paper, those finding most favor being gum, gelatine, albumen and arrowroot. Each of these will answer as a substratum, the character of the print being controlled by the substance used. Gum and gelatine give strong and vigorous images of a brown or rich sepia; arrowroot and albumen softer and more delicate prints. They can all be applied to the paper by simply brushing them over the surface, care being taken that only one side is coated. Gelatine and arrowroot may, if desired, be made by means of hot water into a thin paste, poured into a dish, and the paper floated on the surface. A more even coating is secured by floating the paper in that manner, as when applied with a brush the sizing is apt to dry streaky. The coated paper should be hung up to dry, when it can be kept any length of time.

Any sensitive salt may be utilized as a sensitizer. With albumen and gelatine, silver chloride is most commonly employed in combination with an organic silver salt, such as a citrate or tartrate. Bichromate of potassium and gum are combined to form the image in the "Bi-gum" process. The sensitizer is applied in precisely the same manner as the substratum; that is, with a brush, or by floating on a solution of the salt. This, of course, must be done in a non-actinic light, the paper, when dry, being stored in a dark place. In general, the sensitized papers do not keep well, it being advisable to use them within a few days of their preparation. There are many processes and different sensitive salts. Silver, uranium and iron processes are typical. The substratum for the silver process is:

Gelatine	25 grains.
Ammonium chloride	15 grains.
Water	2 ounces.

Soak the gelatine in the cold water for an hour; add the ammonium chloride, and place the vessel containing them in hot water until the gelatine dissolves. When ready apply the solution to the paper, post card, or whatever surface is to be sized.

For silk or linen, the following is preferable:

Arrowroot	4 grains.
Ammonium chloride	4 grains.
Boiling water	1½ ounces.

Wash the material first, then iron and immerse in the solution for 5 minutes; take out, and when dry, iron again.

The sensitizer for the gelatine substratum is:

Silver nitrate	60 grains.
Citric acid	15 grains.
Distilled water	1 ounce.

For the arrowroot, a weaker solution is employed, consisting of:

Silver nitrate	20 grains.
Water	1 ounce.

These proportions of ammonium chloride must be strictly adhered to, otherwise the sensitiveness of the paper will be reduced. The silver chloride is added to give body and depth to the print, and to aid the toning. For silk and linen, the printing should be carried much beyond the average depth for prints. In sensitizing, float the paper on the solutions 2 to 3 minutes. Should the image on printing be weak, and lacking in depth, the nitrate of silver can be increased in strength to 80 or 100 grains an ounce. If the prints are dull and have a sunken appearance, the floating may be reduced to one minute. Tone as with P. O. P. The prints tone readily, and may be carried through brown sepia, a rich purple to a blue black. One of the best toning baths is:

Gold chloride	1 grain.
Acetate of soda	30 grains.
Water	8 ounces.

The above must be mixed at least 24 hours before use. For immediate use, the bicarbonate bath is excellent, giving a blue black tone.

Chloride of gold	1 grain.
Bicarbonate of soda	4 grains.
Water	8 ounces.

This bath does not keep, and should be made only as wanted. When the toning proceeds too rapidly, as is often the case with these papers, slow down the bath by dilution with water. Fix and wash the same as with P. O. P.

The uranium process is one of the most interesting of photographic printing methods. The prints are unlike those made by the usual methods, being comparable to wash drawings or water-color paintings. The manipulation is even more simple than that of the silver process, only 2 solutions being needed, the sensitizer and the developer. Sized paper can not be employed with success, the plain drawing paper being sensitized with

Uranium nitrate	240 grains.
Water	16 ounces.

This is applied, as before described, either with a brush or by floating on the solution. When dry, the paper is ready

for printing. In the printing lies the explanation of the neglect of this beautiful uranium process, for, unless the conditions are favorable, it may need many hours' exposure to obtain a fully printed proof. The sensitiveness depends on the purity of the uranium nitrate. When chemically pure half an hour's exposure will suffice. Sometimes 8 or 9 hours have been required to reach the requisite depth. On printing, a faint image is given, and the proof may be considered finished when the detail in the shadows is clearly visible, of a pale violet color. The faint impression is fully brought out by development, the nature of the developer determining the final tone. The 3 following developers are good:

For violet:

Chloride of gold..... 1 part.
Water .....240 parts.

For red brown:

Ferricyanide of potassium..... 1 part.
Water .....48 parts.

For black:

Nitrate of silver..... 1 part.
Distilled water .....30 parts.

Green and other colors are possible.

Flow the developer over the print, which, if correctly timed, will gain vigor in a few minutes. After development, the final operation is the washing, occupying about half an hour, to remove the excess salts; when the prints can be taken as finished. A point insisted on in the uranium process is that the paper previous to sensitizing should be excluded from the light for several days.

The iron process, cyanotype, or blue process, was discovered by Sir John Herschel. Since it was first made known numerous modifications have been introduced. It is the simplest of all photographic printing processes, only a single solution being required. A substratum can be applied if desired; but the paper prints successfully with the sensitizer alone. This consists of 2 solutions:

1. Iron ammonia citrate..... 20 parts.
   Water .....100 parts.
2. Potassium ferricyanide ..... 16 parts.
   Water .....100 parts.

No. 2 must be mixed immediately before use, as when in solution it deteriorates rapidly. Make the sensitizer by taking equal parts of 1 and 2, and apply to the paper with a brush, taking the precaution to go over the surface in all directions. After drying, it should be of a pale lemon color. A fairly visible image is given on printing, but it requires some experience before the correct printing depth can be gauged. The proof will not be far wrong if the printing is stopped when the shadows become slightly mealy in appearance. After printing, immerse the proofs in clean water. In this they gradually develop until the high lights are a pure white, and the shadows an intense blue. When this stage is reached they may be considered as fixed, and may be taken out and dried ready for mounting. The developed print will be changed from a blue to a violet by immersion in a solution of caustic potash; to a green by sulphuric acid. A brown can be produced by treating the violet image with tannic acid. Several other methods of producing blue prints have been introduced, though this process forms the basis of them all.—Professional and Amateur Photographer.

EASY METHOD OF ENLARGING.

I have tried enlarging in many different ways, but my best results were obtained by the following method: Place the negative to be enlarged in a solid holder. Put a wide angle lens in the camera so you can get as large an image as possible without the use of a long bellows. Then focus and proceed as usual. You will obtain a positive which should be developed farther than a transparency. After drying place in a printing frame and on this, film to film, place a dry plate and expose one to 3 seconds, according to the density of the negative. Print from this negative and save the positive, for use in case you should break your other plate. If you prefer you can first make your positive and then enlarge from that in the same manner. When it is possible to have an enlarging room you can enlarge to a greater degree.

Always have a ground glass placed behind the plate, to make a more even negative; or place a white substance at a greater distance back to do the same thing.

This mode is much better than enlarging from a print, as it does not give a gray effect nor does the print appear flat. It is superior to a bromide enlargement because several prints can be made instead of only one at a time; and platinum paper is superior to bromide. Often a negative can be improved in its printing qualities by this method and it is possible to get rid of many defects found in the negative.

It is a good idea to make a positive of all your best negatives in case of an accident. I lost one of my best negatives and could never replace it because I had neglected to make a positive.

Clinton A. Smith, Eureka Springs, Ark.

SNAP SHOTS.

Is there any coating other than blue which can be used for printing on postal

cards, etc., and which can be made or easily bought?

John S. Miller, Jr., Chicago.

ANSWER.

Sensitized post cards for making prints in black and white can be prepared by the use of any one of the well known formulas for bromide of silver solutions. However, you would find it cheaper to buy these cards already prepared. That can be done through almost any photographic supply house. These cards are printed by artificial light in the same manner as the well known Cyko paper and developed in the same way. Anthony & Scovill Co., 122 Fifth avenue, New York, can supply you with these post cards in either heavy matt or glace surface, for 20 cents a dozen or $2 a gross.—EDITOR.

Amateur photographers should remember that my 7th annual competition remains open until November 30th. The closing date was made 2 months later this year than heretofore in order to give all amateurs a chance to compete. Thousands of busy men do not take their annual vacations until October or November. Then they go into the woods with gun, rod and camera. It was with a view to giving such people a chance to enter the competition that the open season was prolonged. There are frequently fine days in October and November when good pictures may be taken. The leaves fall by that time and better light may be obtained in the forests. It is possible to get many more pictures of live birds and animals, especially by bait, in the autumn than in summer, and I trust this new arrangement may result in many fine pictures being entered in the 1902 competition.

Can you give me the address of a firm handling cameras that take 10 photos with one exposure on one plate?

Arthur Achison, St. Stephen, N. B.

ANSWER.

There is an apparatus for taking 10 photographs on one plate, but I do not know the address of the manufacturer as he does not advertise in RECREATION. If you will write Anthony & Scovill Co., 122 Fifth avenue, New York, they can undoubtedly send you a catalogue which will give you all the information you wish. The old tin-type camera takes any number of pictures on one plate, but that is not adapted for amateur use, as it consists of what is known as the wet process.—EDITOR.

Where can I obtain an attachment, or lens for taking stamp pictures?

Fred Francis, Wisdom, Mont.

ANSWER.

As most of the attachments for making stamp pictures are manufactured for use with heavy professional cameras it is doubtful if you can procure one which can be adapted to an ordinary camera. Anthony & Scovill Co., 122 Fifth avenue, New York, can supply you with camera complete for the making of one to 24 stamp pictures on a 5 x 7 plate, for $12. This includes extra kits, ground glass and plate holder.—EDITOR.

I see in your June issue, on page 487, that Jos. B. D., Allegheny, Pa., wishes to buy negatives of Pan-American pictures. I have about 50 good negatives of Pan buildings, statuary, night views, and a number of snapshots taken on the Midway, which are sure to please. I will sell prints from these negatives at 10 cents each, unmounted, size 4x5. I have a few choice 5x7 negatives; one of the Temple of Music, which can not be beaten; also an excellent one of the Triumphal Bridge. Prints of these I will sell for 20 cents each, unmounted.

H. M. Albaugh, Cleveland, O.

For backing plates the best combination is water, lampblack and gum arabic. The trick lies in using gum arabic for an adhesive, about one-half as much gum arabic as lampblack, in bulk, not by weight. Water should then be added until the mixture is the consistency of thick paste. It can also be dried in cakes by pouring it into moulds and setting it behind the stove. It is not necessary to put on a thick coating of this backing; just enough to cover the plate evenly will be sufficient.—Photo Beacon.

To prevent halation around windows when ready to make the exposure on an interior in which windows are included, hang one thickness of ordinary red mosquito netting over them. It will not show in the photograph and will admit of perfect rendition of lace curtains or other hangings, as well as full detail in the frame and sash of the window. Of course, full sunlight streaming into the window will be a hard test; but the scheme will succeed where non-halation plates will fail.—Western Camera Notes.

To remove yellow stains from pyro developed negatives, bathe them in sulphurous acid water or in a 10 per cent solution of sulphide of soda, to which a few drops of sulphuric acid have been added.

—The News Monger.

When a toning bath turns purple and a precipitate forms it is spoiling. The black sediment is metallic gold.—Photo Clippings.

The Dark-Room Abolished.

A Machine that not only Develops and Fixes Film Without a Dark-Room, But Does it Better than it is Done in the Dark-Room.

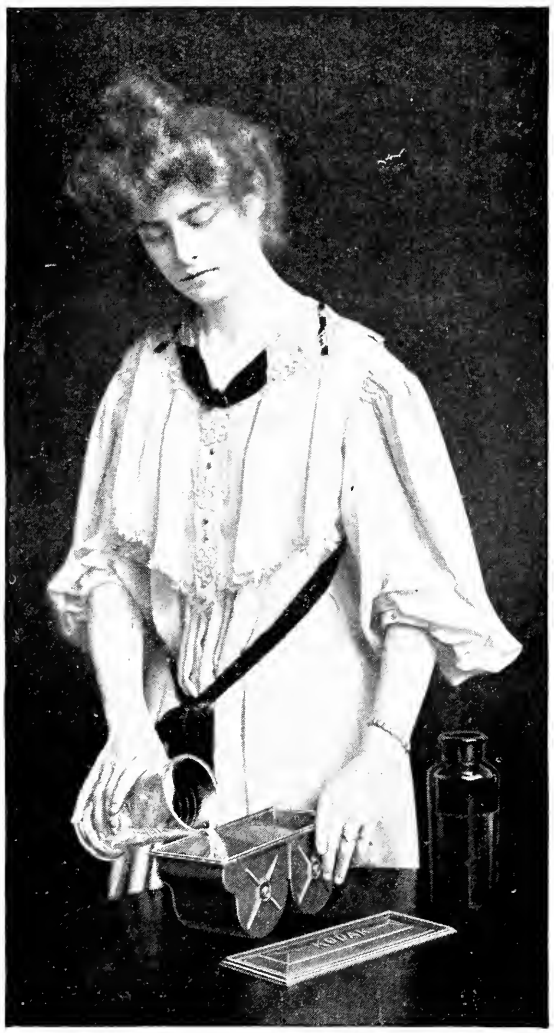
THE GREATEST STRIDE IN PHOTOGRAPHIC PROGRESS SINCE THE INVENTION OF THE KODAK.

The final triumph has come. The photographic dark-room is abolished.

Cameras will be improved from year to year; photographic processes will be still further simplified and the lens manufacturers will no doubt make marvelous strides toward perfection; but nothing which remains to be accomplished in the simplifying of picture making can equal in importance or interest the simple device by means of which the gloom of the dark-room has been dispelled. To the professional the dark-room has always been as a necessary evil; to the majority of amateurs it has been an evil to be avoided and hundreds of thousands of them have there-

fore "pressed the button" and allowed some one else to "do the rest." Now, these amateurs may themselves accomplish every step of picture making, from pressing the button to mounting the finished print, without once straining their eyes beneath the feeble rays of a ruby lamp.

This stage in the development of photography has been reached by a natural evolution. An evolution culminating, it is true, with a stroke of genius which adds



The Developer is Poured In.

the final triumph to the growth of the Kodak idea—Simplicity.

Since improvements in the methods of camera manufacture had so far reduced the cost of production as to allow really fine instruments to be sold for a few dollars, there was but one thing that prevented the use of the Kodak from becoming as universal as the reading of books—the dark-room. Step by step the necessity for it had been abolished until it was no longer in the slightest degree essential except for the purposes of development. Th Kodak Cartridge system and the simpler printing processes had driven it to the last ditch, but to that, for some years, it held tenaciously. To-day the forces of Necessity allied with those of Science have driven it out. The triumph of Kodakery is complete.

The Kodak Developing Machine not only develops films without a dark-room but does it better than it is done in the dark-room. It widens the photographic field and gives the amateur better results than he obtained before. There are many things which may be done more perfectly by machine than by hand—developing negatives is one of them.

From a physical standpoint the machine gives better results than can be obtained by hand because it does away with the possibility of foreign substances in the developer settling on the negative and making spots; it does away with the possibility of defacing the negative with finger marks, and it prevents the corners of one negative from scratching the face of another. Chemically the advantages are boundless. In abolishing the dark-room it also abolishes the dark-room lamp. Every experienced photographer knows that in cases of prolonged development the fog from this lamp often becomes serious. The beginner is especially prone to fogging his negatives by examining them too close to the ruby light. He is unable, perhaps, to judge just how far development has proceeded and in his anxiety to stop at precisely the right point, he holds them too frequently in front of the lamp and too close to it. He not only strains his eyes and his nerves, but, alas, he often spoils what would, but for his anxiety, have proven a most excellent negative. In the Developing Machine, the negative being in absolute darkness, there is nothing to fog it.

In the Kodak Developing Machine both the film and the developer are in constant motion—the result is quick action on the part of the developer and a brilliant snappiness in the negative that cannot be equaled under the old conditions.

The Kodak Developer Powders contribute their part in making the Developing Machine a success. They are especially prepared for use with the machine, and have as a base pyrogallic acid, a developer that is unequalled for the latitude which it allows in development or for the brilliancy of the negatives which it produces, but which has hitherto proven unpopular for amateur use because of the fact that it stains the fingers a disagreeable yellow. Used in the Developing Machine, it, of course, does not come in contact with the fingers, and all objection to it is overcome.

The Developer is Poured Off.

The first question regarding machine development which will come to the mind of the skeptical photographer will assuredly be: "When there are both snap-shots and time exposures on the same strip of film, or when there are several unequal exposures, how are all to be correctly developed, there being no opportunity for individual treatment?"

We, ourselves, before experimenting, felt that the machine might fail under these conditions, but the practical results show that within any reasonable limits it does not. The remarkable "latitude" which Kodak film allows in exposure, combined with the constant agitation of the negative during development, with the peculiarly active properties of the Kodak developer powders and the entire absence of fog (ordinarily caused by the dark-room lamp) upset all theories. The pictures herewith give a practical demonstration on this point. All were made on one strip of film; all were developed in the machine at one time and none of them was "doctored." They are simply the result of straight development wlthout after treatment of the negative, the prints being made by contact on Velox paper, with no "masking" or "dodging." Nos. 1 and 2 are timed exposures. No. 1 was given a sixty second exposure; No. 2, with the same light and with the same opening in lens, was given six minutes' exposure, or six times as much. In actual practice anyone with a week's experience in picture taking could judge much more closely than this as to the correct exposure to give. A correct exposure in this instance would have been two to three minutes. The operator purposely made

the over and under exposures in order to test the latitude of the film when developed in the machine. No. 3 is from a snap-shot made out of doors in a rather hazy light. No hand development, no matter how expert the operator, could have secured better negatives from these exposures. Theory is good, but facts are better; the results which the Kodak Developing Machine accomplishes demonstrate that it stands the test of use—it works.

The appearance of an "unfixed" negative held beneath the faint light of a dark-room lamp is deceitful. Leaving out, then, every other consideration, any amateur except one of the widest experience, can obtain better results by developing his negatives for *a certain number of minutes* in the Kodak Developing Machine than he can by developing them

No. 1. One Minute Exposure.

by hand in the dark-room and trying to judge their density by what he can see under a dark-room lamp.

Indeed, the method of "timing" instead of watching development is one that is already receiving attention among thinking photographers. A correspondent of the British Journal of Photography, in discussing this subject in the issue of March 7th, says "If the timing method (of developing) is adopted, one of its great advantages is that the photographer will be more careful to make his exposure correct and will abandon the mistaken idea that 'I can put it right in development.' * * * Unless each set of exposures is developed at once, it is almost impossible to use much discrimination in development, and it is much better to expose correctly and time development.

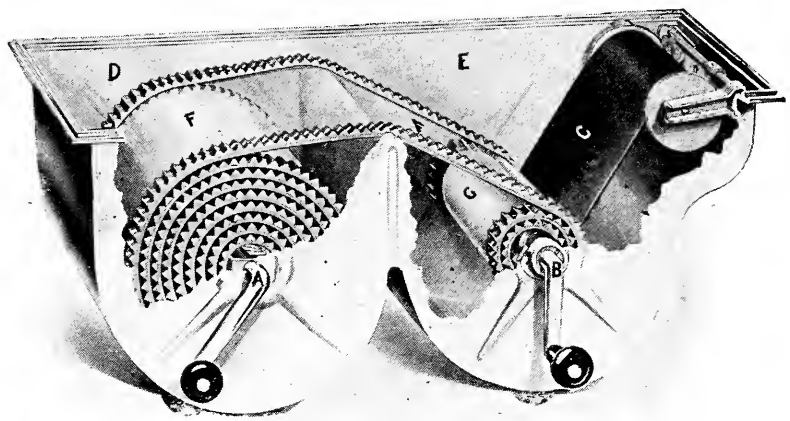
No. 2. Six Minutes' Exposure.

If timing development is gaining ground among those who use glass plates and a dark-room, it certainly cannot fail to find favor with those who can realize the advantages of machine development. At first the Kodak Developing Machine may appeal to the amateur simply because of its convenience. Eventually he will cling to its use because it will give him better results than he can obtain by the older methods.

Any one who can operate a Kodak (and who cannot?) can grasp the working of the Kodak Developing Machine in ten minutes. The operation is simplicity itself. The mechanism is in no wise complicated. It has no trappy features. Everything is in plain sight. Carefully written, illustrated directions explaining the whole process in terms that a school child can understand, accompany each machine. Every step has the "Kodak Simplicity." Briefly outlined, the process is this:

No. 3. Snap-shot in Hazy Light.

After removal from the Kodak the cartridge of exposed film is inserted in the machine so that the black paper will lead from the top as shown in cut, the celluloid apron (F-F) having first been wound onto Arbor "A." The gummed sticker which holds down the end of black paper is then broken; the paper pulled out and the end attached to Arbor "B" by slipping under the wire guard. Arbor "B" is now turned to the right until the word "Stop" appears on top of cartridge. Then the end of Apron (F-F) is hooked onto Arbor B, after which the developer is poured into compartment "E" and the top put on machine. The operator now turns handle to the right slowly and evenly until the time of development, about four minutes, has expired. The film (G) winds up inside of apron but with the face not touching it, thus allowing free action of the developer. As the handle turns freely and easily this operation is not at all wearisome.



The Machine in Detail.

The cover is then removed from the machine; the developer poured off; the fixing solution poured in; the cover replaced and the handle again turned for about four minutes, when the fixing will be complete. After fixing, the cover is again removed, the fixing solution poured off and after rinsing in two waters the film is removed from machine by taking hold of either the apron or the end of black paper and pulling out of machine, the film being taken hold of when it appears and pulled free from the black paper.

Nothing now remains to be done except to wash the film, to free it from Hypo (fixing solution); wipe it with a soft cloth and pin it up to dry. As soon as dry the negatives are cut apart and are ready for the print making to begin.

The machine may be used again immediately. Simply rinse well; and wind apron back onto Arbor "A." All is now ready for the next roll of exposures.

Without the Kodak Developing Machine the amateur must go either to the expense of sending away his negatives for developmen, to the expense of fitting up a dark-room in his home, or must accept the only other alternative—that of improvising a dark-room from bath-room or kitchen. This, as a rule, is not only a nuisance to the amateur, but, alas, he frequently makes a nuisance of himself by plunging these rooms into Stygian darkness, when, more than likely, some other member of the family would like to use them for their legitimate purposes.

The Kodak Developing Machine saves all these inconveniences and cuts off expense. The cost of operating the Machine, as compared with sending out one's negatives for development, is a mere trifle. Five cents for a Kodak Developer Powder, and five cents for a Kodak Fixing Powder covers it all.

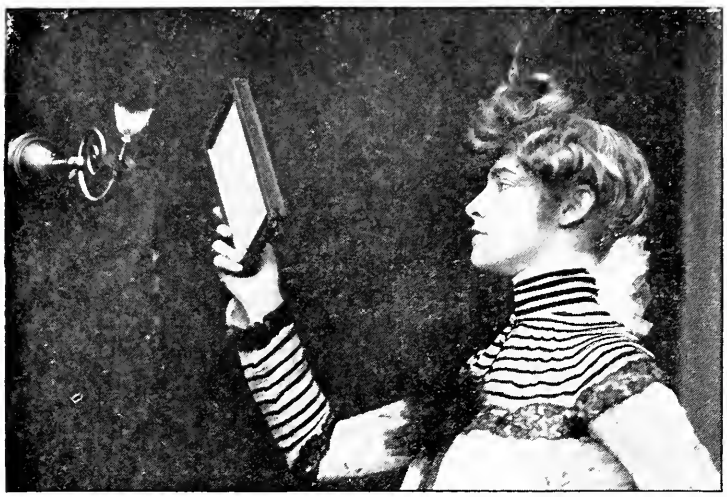
Having developed the negatives by means of the machine, one finds delight in the various printing processes, now greatly simplified as compared with those of a few years ago. Solio Paper, printing by sunlight, giving brilliant, glossy prints; Velox or Dekko, printing by gas or by lamp light and yielding rich black and white effects on a soft matte surface; Eastman's W. D. Platinum Paper, requiring only hot water for development and producing prints of delightful depth and

It Gives Better Results Than the Old Method.

richness; Eastman's Sepia Paper, giving exquisitely soft Sepia tones and broad, sketchy effects that remind one of an old etching—all of these papers are simple to use and not one of them requires a dark-room at any stage of the manipulation.

When one has selected his own point of view for the exposure, has developed the negative and has finished the print—has produced by his own handiwork, through every stage of its growth, the perfect and satisfying picture—then, and not until then, will he appreciate to its full extent the witchery of Kodakery.

Not only does the Developing Machine throw light into the dark-room at home, but it enables one to develop his negatives when away from home. In his room at the hotel, in the hunter's or fisherman's camp, in the cabin of his yacht, in the dressing-room of a sleeping car—in fact *anywhere that one can obtain cold water and a place to throw waste,* the amateur can operate the Kodak Developing Machine. In loading the Kodak he uses Film Cartridges for two, four, six or twelve exposures, as he desires, and when the exposures are made he neither waits in impatience for the return from his vacation trip nor makes a long and aggravating search for a photographic dark-room, but in broad daylight and in perfect comfort he operates his machine. Even if his judgment be somewhat at fault, the wide latitude which films allow in exposure will help him out within any reasonable limits. Skill is not an essential—just an implicit following of the very plain directions will make negatives of technical excellence.



Delight in the Simple Printing Process.

The art in photography lies in choosing and arranging the subject, in posing the model, in securing a harmonious lighting and pleasing proportions. Development is mechanical, and being mechanical is best accomplished by a machine. If among artistic workers there be those who still wish to manipulate not only the light and shade and subject, but the negative as well, there remain the simple methods of reduction, local reduction if you like, and of intensification, which may be more easily used with a machine developed than with a dark-room developed negative, because the former, not having been affected in the slightest degree by fog from the dark-room lamp, gives a better foundation upon which to work.

The Kodak Developing Machine removes technical difficulties without imposing artistic limitations. Ninety-nine out of every hundred amateurs can do better average work with the machine than without it. The hundredth man can, at least, accomplish as good work with the machine as by hand, and is not in the slightest degree deterred from after-manipulation by the fact that his negatives are machine developed.

By means of the Kodak Developing Machine photography becomes as an open book.

The Kodak Developing Machines are thus far made in two sizes. The Style A Machine, for 12 exposure (or shorter) cartridges up to two and one-half inches in length, is for use with No. 0, No. 1 and No. 1A Folding Pocket Kodaks, No. 1 Panoram-exposure (or shorter) car- Cameras of either size. The retail price of the Style A machine is six dollars.

The Style E Machine, for 12 exposure (or shorter cartridges from three and a quarter to five inches, both inclusive, is for use with the No. 2 and No. 3 Folding Pocket Kodaks, the No. 3 and No. 4 Cartridge Kodaks, No. 2 Flexo Kodaks, the Bullet and Bulls-Eye Kodaks of all sizes, the No. 4 Panoram and the No 2 Stereo Kodaks. The retail price of the Style E machine is seven dollars and a half. In each case the price of machine includes a handsome natural finish wooden box, with leather handle.

One Appreciates the Witchery of Kodakery.

The Kodak Developing Machines may now be purchased of kodak dealers anywhere in the United States. Further information regarding them will be given upon application to the Eastman Kodak Co., Rochester, N. Y.

IMPORTANT OPINIONS OF IMPORTANT PEOPLE
on the merits of the KODAK DEVELOPING MACHINE

A Famous Photographer's View.

The new device has reduced the whole question of development to one of a simple handling of material.

The time and developer being fixed, the amateur can, in development, bring out all that the exposure is capable of yielding.

Rudolph Eickemeyer, Jr.

An Epigrammatic Approval.

You go out and shoot your ducks and bring them home with you when you have a Kodak Developing Machine.

Frederic Remington.

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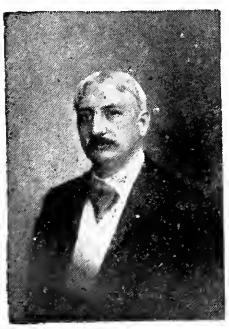
From the Editor of the Century Magazine.

Please send me, with bill, one of your Kodak Film Developing Machines for use with No. 2 Pocket Kodak—the machine shown me to-day by your demonstrator.

R. W. Gilder.

More Than Human.



I was about to exclaim, this is almost human, when I saw the exquisite quality of the machine-made negatives and the certainty of the results. But, after all, it is *more than human*, for few if any experienced photographers would be able to uniformly produce the results I saw and marveled at.

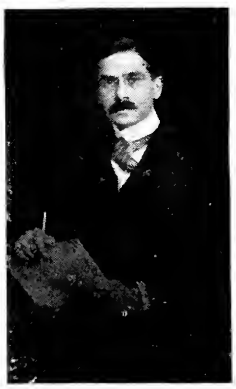
Edward W. Newcomb.

A Regret.

If I had had a Kodak Developing Machine with me in Cuba I should have saved a hundred or more photographs of the Santiago campaign which were spoiled in development by Cuban photographers.

George Kennan.

From a Practical Standpoint.



The Kodak Developing Machine will doubtless prove to be a most valuable acquisition to the amateur photographer's outfit. By dispensing with the continued handling, the percentage of failures will be greatly reduced. What matters it if one negative be carried a little further than another? This can readily be taken care of in the printing.

Chas. I. Berg.

The Professional View.

I have carefully examined and manipulated the Kodak Developing Machine and I have found that the latitude which it allows in exposure both time and snap-shot, combined with the rapidity with which films can be developed with it, certainly recommend it. As a professional photographer I cannot too highly recommend it and I prophesy for it a very great sale.

Theo. G. Marceau.

Negatives are Better.

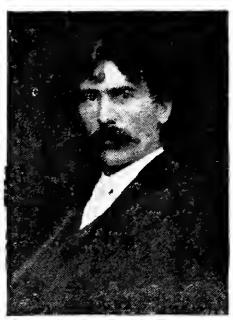


Photo by Hollinger.

The Kodak Developing Machine will prove invaluable to the outdoor photographer and the sportsman, as it will enable them to see the results before leaving camp and find their mistakes before it is too late to make the pictures over again. As a consequence of the prompt development that it makes possible, the negatives are cleaner and better than those that any but the most expert can get by the old method and all this without the bother of dark-room and ruby lamp. I am surprised at the latitude in exposure that the machine allows.

Ernest Thompson Seton.

An Authority.

For the average photographer and for the masses the dark room is doomed, thanks to your never ending ingenuity in simplifying the mechanical part of photography. The daylight developing tank for your daylight films is invaluable to all photographers, to beginner and advanced alike. Its mechanism is so simple that a child will be able to do its own developing and as to the advanced photographer the possibilities opened up to him are endless. This ingenious introduction of yours will certainly convert many to film photography, will attract thousands of new-comers to the field of photographic action. Such at least is the opinion of Yours truly.

Alfred Stieglitz.

Doubles the Value of His Kodak.

The Kodak Developing Machine solves a knotty problem in out-door work, where the sportsman or tourist is limited as to baggage and camping or traveling outfits. This new machine enhances the value of my Kodak 100 per cent. I shall never again go into the woods, the mountains or on the water without one of these marvelous appliances.

G. O. Shields.

Could Not Have Believed It.

Unless I had actually stood by and watched you turn the crank, I should never have believed that little metal box could do the business. It will be a blessing to those of us who have not the patience to become expert in developing. It is a great thing for hunters and fishermen who can take their photographs by day and, thanks to this little mechanical developer, have a look at the developed film in the evening.

Caspar Whitney.

Will Solve the Amateur's Difficulties.

More traditions shattered! The machine is really wonderful. I could not believe that such uniform results could be obtained after such a wide difference in timing exposures on one strip of film until I saw it demonstrated.

Zaida Ben Yusuf.

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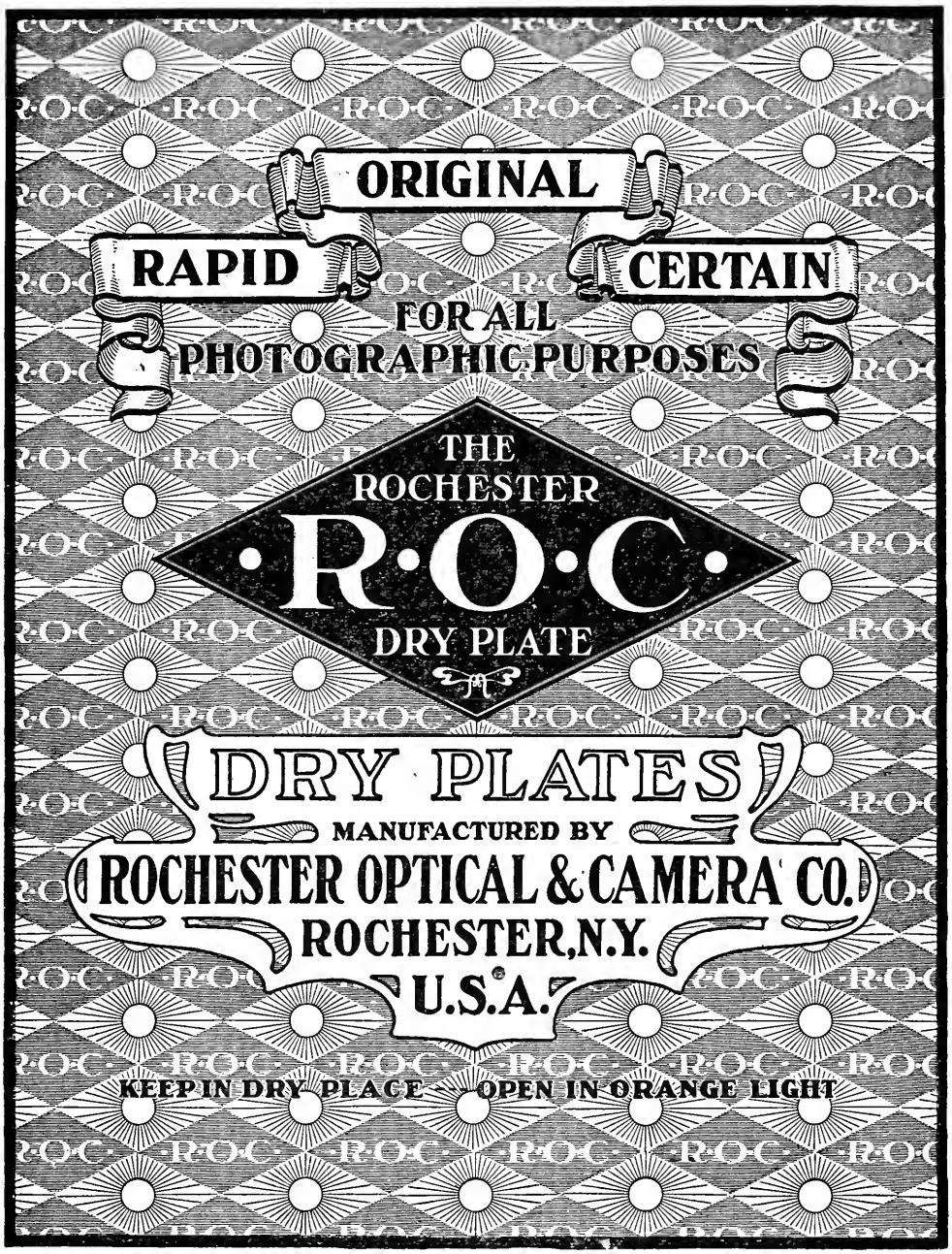

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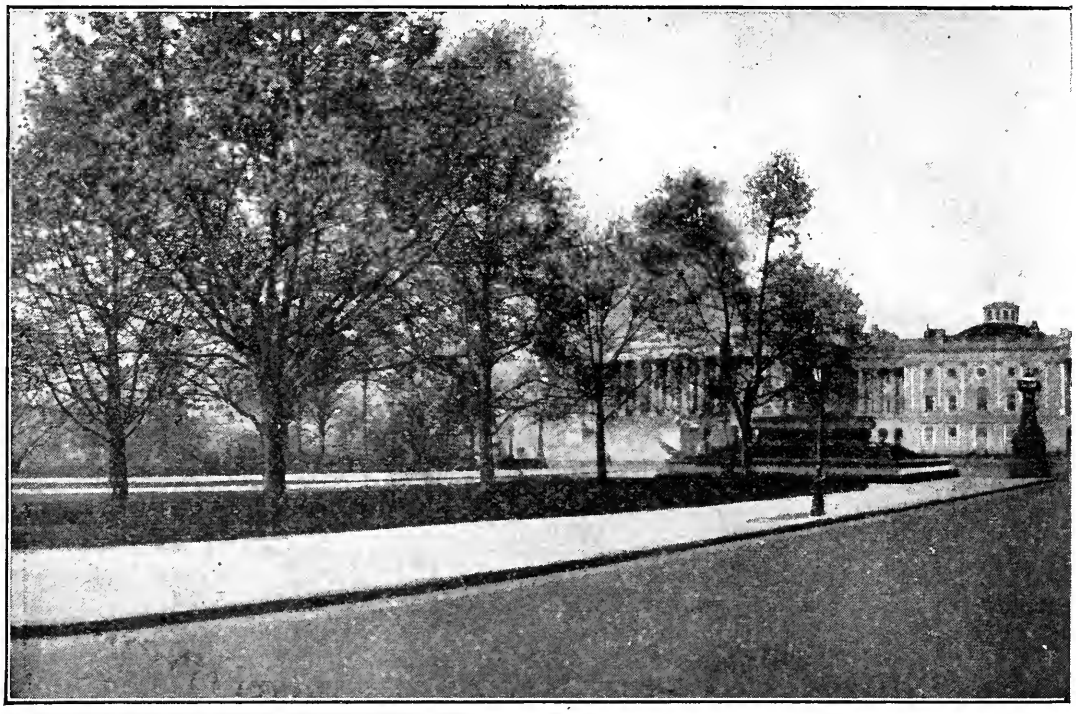

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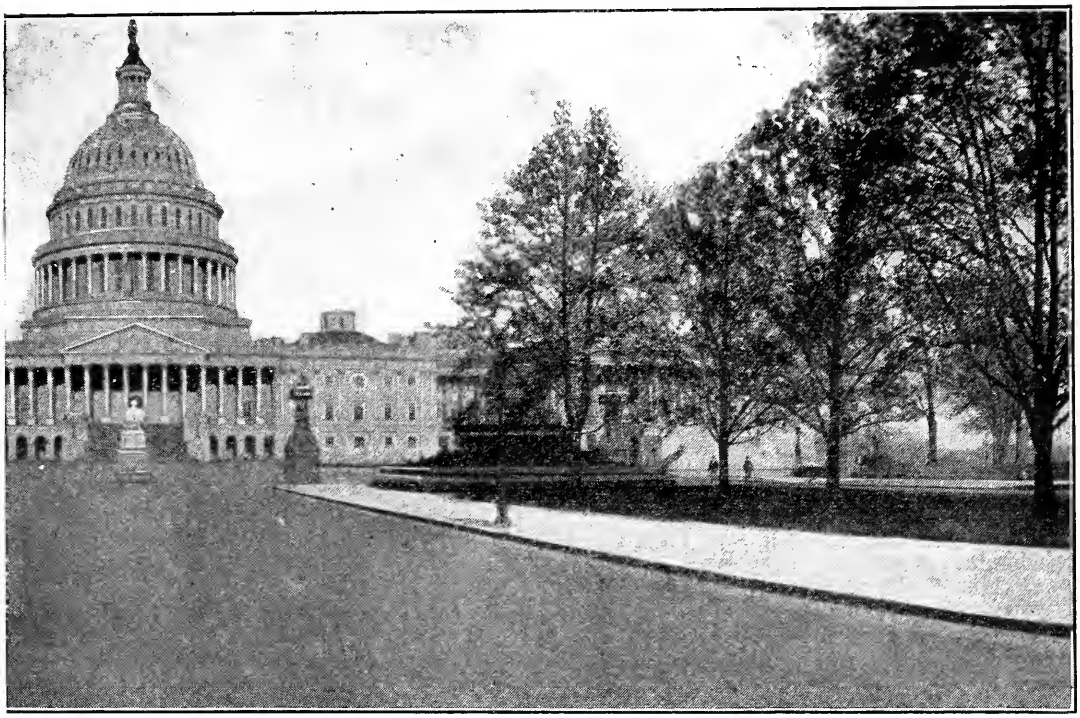

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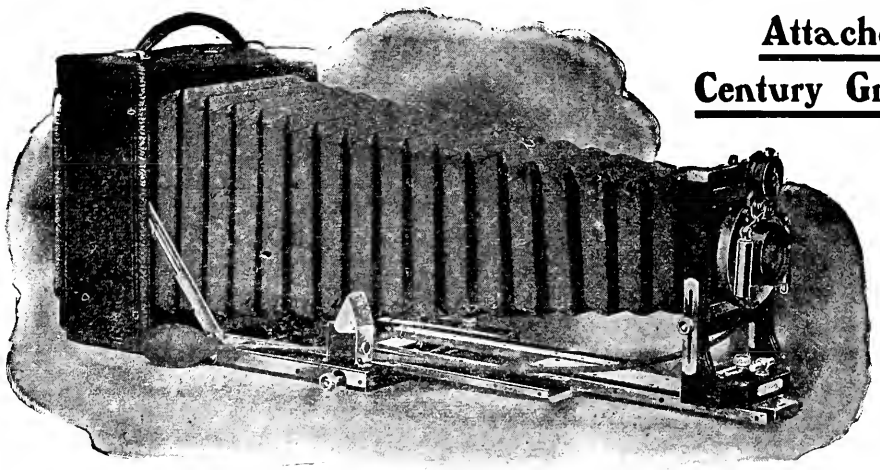

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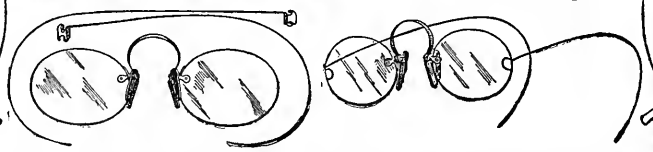

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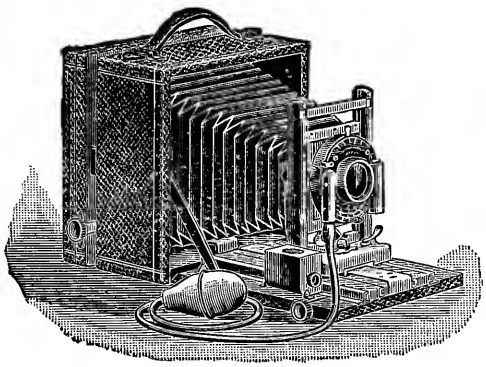

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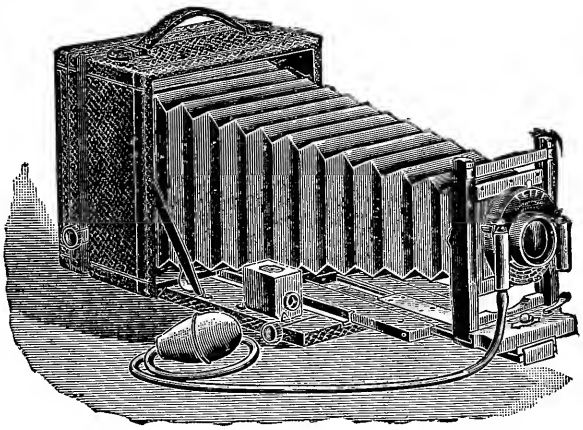

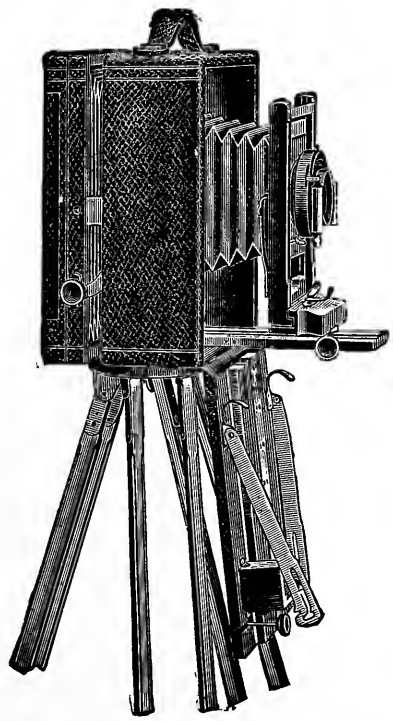

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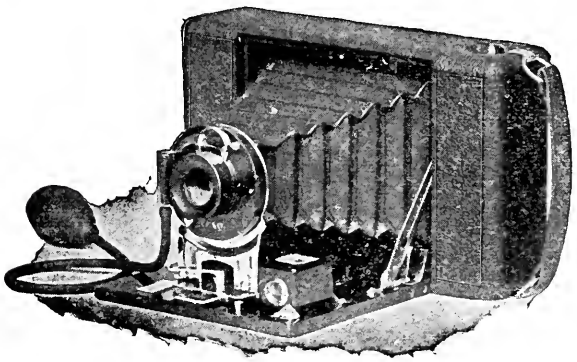

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Mrs. Youngbride—I've come to complain of that flour you sent me.

Grocer—What was the matter with it?

Mrs. Youngbride—It was tough. I made a pie with it, and it was as much as my husband could do to cut it.—Philadelphia Press.

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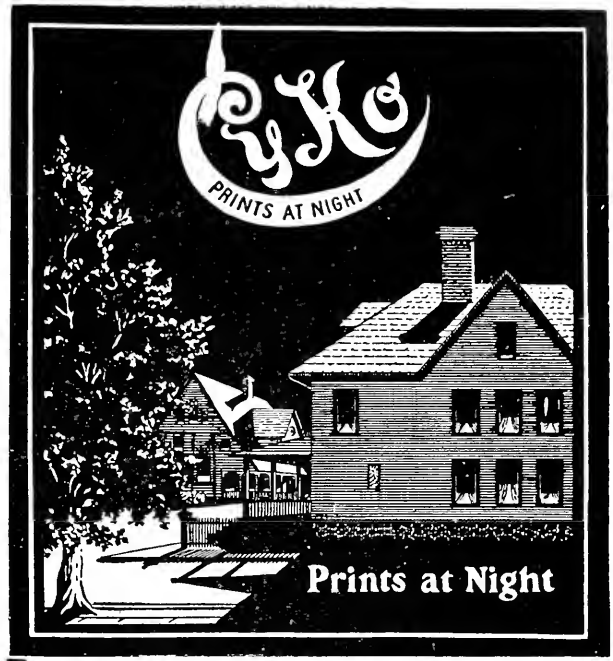

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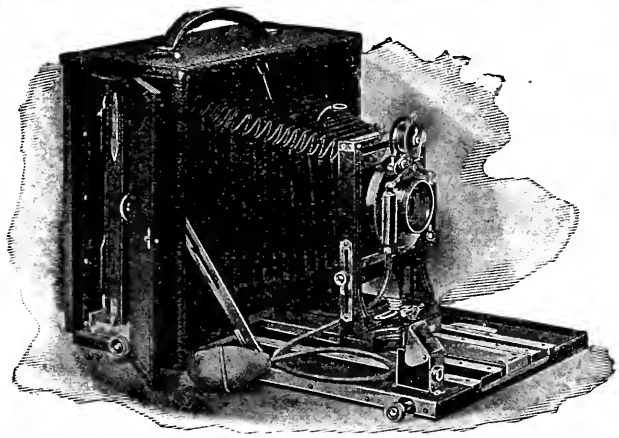

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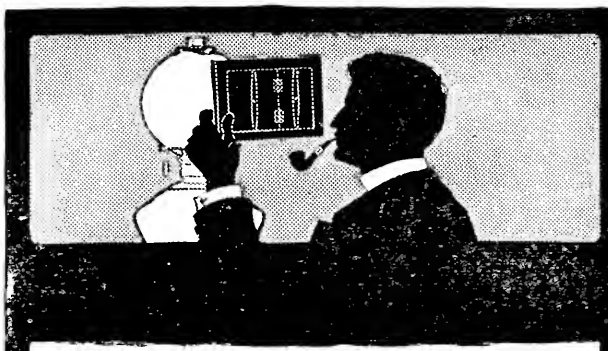

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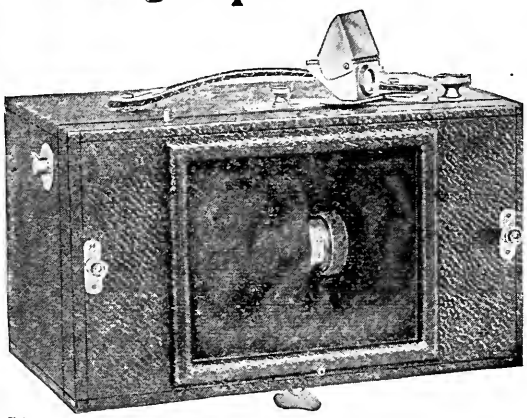

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DEAD, YET ALIVE.

Bluffton, Ohio.

Editor RECREATION:

It was a frosty morning. The leaves had been drenched with rain the day before and the chill of the night had frozen them stiff so that one could hear scarcely anything but his own footfalls.

My fingers had become so numb that I thought it prudent to build a little fire and warm them. I had scarcely determined to do this when I found myself between 2 large pines which crossed each other at right angles. A small birch stood just in the vertex of the angle formed by the pines and I concluded to build my fire on one of the logs, using for fuel the birch bark.

I was rubbing my hands in the flame and enjoying its warmth when I heard, as I thought, a red squirrel jumping along in the leaves. Instead, however, came a great buck walking leisurely out of a swamp and coming almost toward me. Catching up my gun I trained it on the approaching deer.

He was not over 50 paces from me and I was following every step with my finger against the trigger, waiting for an open space, which he must soon enter. "Ba-a-a." He stopped, but had gone a step too far. His head and shoulders were behind a large spruce, but thinking I might uncouple him I fired at his back bone. When the smoke cleared away he was rearing and striking wildly with his forelegs. Leaping over the log in my front and reloading as I ran I reached him just as he plunged forward on his side with his head toward me.

As he lay blinking I thought him quite safe, and congratulated myself on having secured so fine a specimen. I was standing within 10 feet of him, my gun resting carelessly in my left arm, looking about for the doe which in my ignorance I thought probably near and waiting to be shot, when my dying buck gave a lunge and was on his feet presenting a full broadside at which I pointed my gun and pulled the trigger. "Click" went the lock, and away went the deer. The long firing pin had rusted slightly in its place and broke the force of the hammer. Before I could recock and catch aim the deer had placed a good many trees between us, consequently I missed him.

To establish completely a genuine case of greenhornness I only need add that I followed the trail immediately and hotly. The deer was bleeding on both sides and was easily followed a short distance, but after the first half mile the blood stains grew smaller and farther apart as the crooked trail led on. Reaching a small brook I could see where he stopped to drink, but as he had then stopped bleeding I lost his trail.

As I went home that evening, my feathers very flat, I felt better every time I kicked myself for not finishing my job while I could. Experience is a dear school.

H. E. Altman.

WHERE QUAILS DO NOT FLY.

Verily my lines have fallen in pleasant places. My wife, child and I began our journey by being upset from a sleigh into a foot of snow; we ended in white duck and perspiration.

Already have I had a round at the game and cactus, not to mention being a spectator at a bull fight. The day I arrived the Lieutenant in command and the surgeon whom I relieve suggested a quail hunt in order to initiate me into the cactus. The next afternoon we drove out about 5 miles to the Southeast. The Lieutenant had a pump, 12 gauge; the Doctor a 10 gauge; while I took the steward's 12 bore gun.

It was the most peculiar quail hunt in which I ever participated. Who would think it would be any sport to shoot quails on the ground? That is what we did. The birds seldom take to wing but scurry along about 150 feet ahead of the hunter, dodging from one clump of mesquite or cactus to another with lightning swiftness. It is during this quick exposure that the shot has to be made. We sighted one covey before we reached the point decided on. All piled out and went racing along with one eye on the ground to avoid cactus the other ahead to catch sight of the fleeing quails. I got one shot and missed, as did the others. I went plunk into a cactus the first dash, and in stopping an instant to pick out a few thorns was left behind. After catching up again we circled around several times together but got only shots at an occasional cottontail. Then we separated and when we returned to the buckboard we had 2 or 3 rabbits and one bird.

We then went on to the place chosen, and agreed to hunt one hour only and quit. Hardly had we gone 100 yards when my companions commenced a regular fusillade. I saw several birds take wing and I knew I then had a chance to kill a few. I had not yet caught the knack of ground shooting. The Doctor flushed one and as it went circling around me I fired and it dropped like a stone. I then got another rabbit and then another. We separated and remained apart until ready to return. I missed time and again on running shots. Finally I found a covey that acted as civilized quails should; they took wing occasionally. I staid with them as long as I could, scarcely missing a shot on the wing. When we returned to the wagon we had over 20 birds and about a dozen bunnies. I was middle man on the count.

There are many quails, deer and rabbits here, but little hunting is done. I have seen dozens of antlers hanging around on back yard fences, so I judge a good many deer are killed here.

G. S. Cable, Actg. Asst. Surg., U. S. A.,
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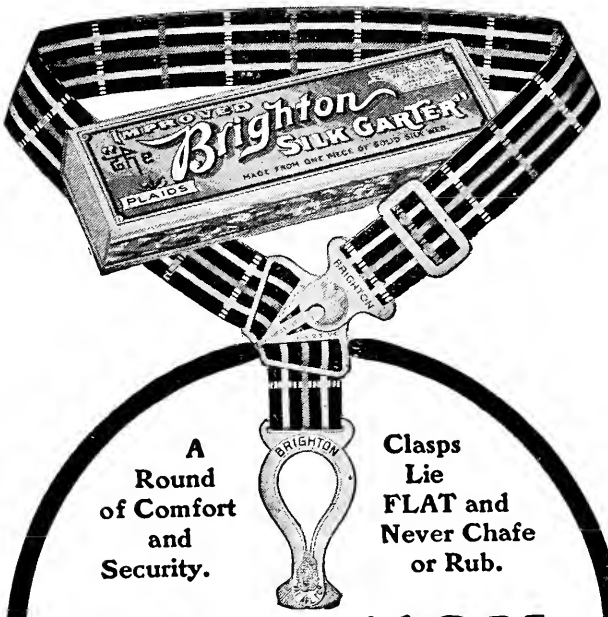

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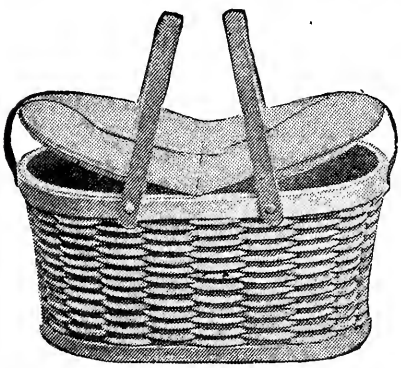

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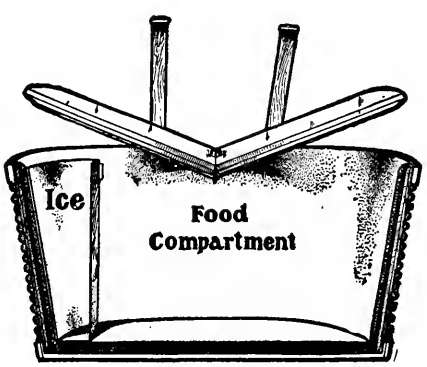

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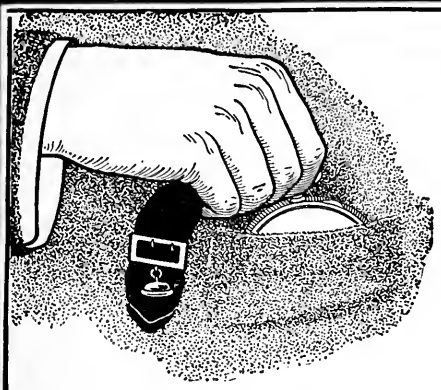

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Send in your Club at once.

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J. H. Potts, Shepardstown, W. Va.

ANSW. R.

The only safe remedy for your rifle is to send it to the Stevens Arms Company and let them clean it out. Possibly it is not lead you found in the barrel, but that the barrel has rusted and pitted. If so, nothing can remedy that, not even the man who made the gun. The only way you can make such a barrel effective is by having it re-bored to a larger caliber. Any gunsmith could run a cleaning rod through the barrel, tightly fitted, and use emery powder, which would probably remove some of the obstructions, but, as I have said, if the barrel is pitted, that would not cure it.—EDITOR.

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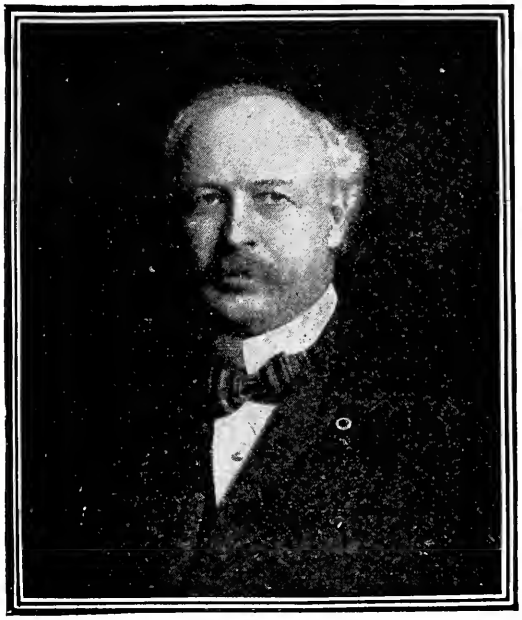

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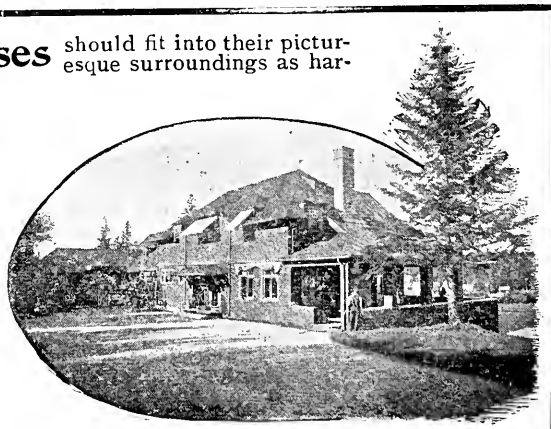

Kebo Valley Club, Bar Harbor, Me.
Fred. L. Savage, Architect, Bar Harbor.

ELK IN WYOMING.

Casper, Wyo.

Editor RECREATION:

In company with 2 other hunters I visited a sheep herder's camp in the mountains of Wyoming, to hunt elk from there, for a number had been seen in that vicinity. The morning after our arrival, we mounted and started out. Owing to the rough mountains we were to travel over, we took no provisions except salt and no bedding but saddle blankets. As we were to be out several days, it was "kill game or go hungry."

The leader of our party was called "Tex." He was a good shot and hunter. He had killed tigers in India, penetrated into the Dark Continent, and seen the Land of the Midnight Sun. His experience made him a valuable man for us.

The place where we expected to find elk was a day's travel over fallen trees and loose boulders, through deep gulches and boggy marshes. In picking our way along on foot, elk tracks were discovered in the moist earth. Although nearly exhausted, we at once became enthusiastic. Crossing a spur of a mountain, we were descending toward the plain, when Tex called a halt.

We cautiously approached a spot overlooking a small meadow. There, only a few yards away, were 15 elk, drinking from a pool. I looked with wonder and admiration, but the animals soon discovered us. Then the work of extermination began. I hit everything within range but an elk. Tex killed 3 of the band, the rest quickly disappearing among the pines.

Our expectations had been realized sooner than we had hoped. In a short time we were ready for the back trail. With such a load of meat on our pack horses, the return was slow and toilsome, and it was necessary to camp for the night.

Lying before the fire, wrapped in the saddle blankets, after a supper of elk steak, the tired hunters dropped off to sleep. Some hours later a violent plunging and snorting of the horses aroused me. I did not know the cause of the trouble, but Tex said "bar" and reached for his rifle.

One shot settled the matter with the bear. Then all hands at once set to work to take off the skin. By the time that was done, it was growing light. Everything was made ready for an early start to the camp of the sheep herder, which was reached during the day, without further adventure. R. A. Crosthwaite.

For Sale or Exchange: Nearly new 25-20 Maynard Rifle, fancy stock, telescope sight, extra Stevens-Pope 25-20 barrel, with Lyman sights; both barrels 26 in. This is the finest rifle made and in perfect order. Cost $68, sell for $45 or exchange for Homer or Renet pigeons. J. A. Curtis, Scranton, Pa.

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Wanted: A Stevens target pistol, Conlin model, Speer trigger guard, chambered for S & W. 32-44 cartridge. Address, S. F. W., care RECREATION.

For Sale: Buffalo Heads, large, fresh and fine. Chas. Payne, Wichita, Kansas.

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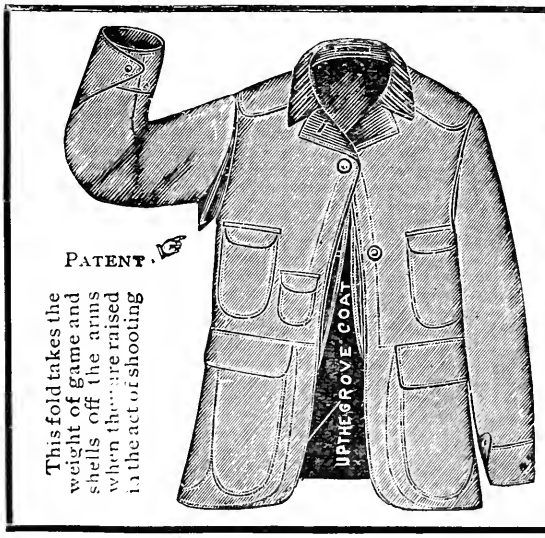
no matter where it is. Send description, state price and learn how. Est. '96. Highest references. Offices in 14 cities.
W. M. Ostrander, 1866 **N. A. Bldg., Philadelphia**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This fold takes the weight of game and shells off the arms when they are raised in the act of shooting
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recommends itself and reminds you that on receipt of your name and address we will mail you our

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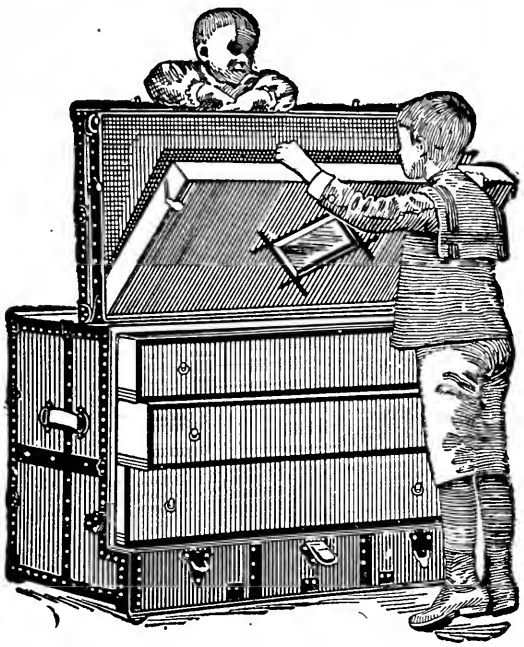

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Fits Perfectly.

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WOMEN! Jaeger Underwear means for you more comfort than you have ever experienced, perfect freedom of limbs, and the best fit possible.

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Can furnish cheaper Quality if desired.

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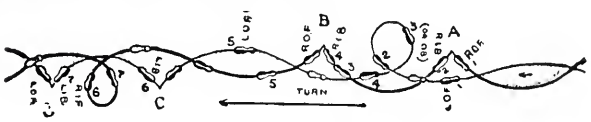

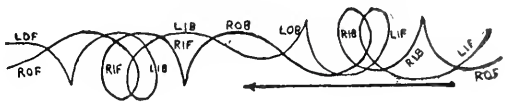

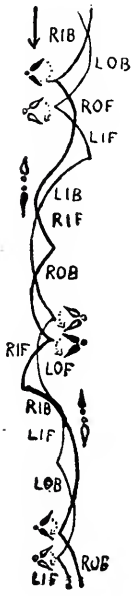

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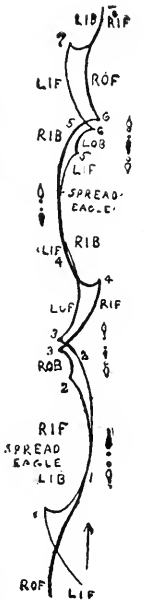
With the advent of Winter comes the Ice and it only remains to possess a pair of **GOOD SKATES** for the full enjoyment of that incomparable season.



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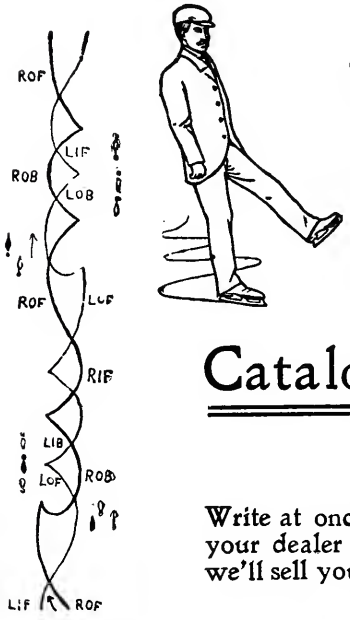

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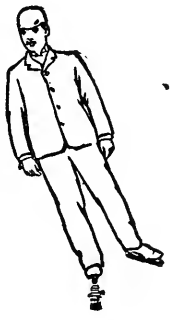

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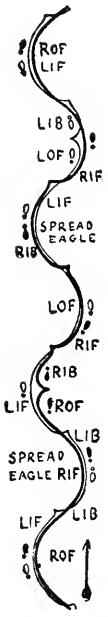

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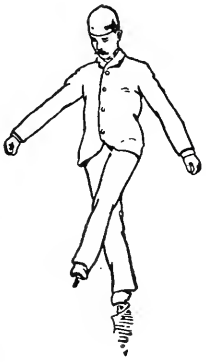

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Handbook of Figure Skating

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which contains over 600 diagrams and illustrations, with suggestions for nearly 10,000 figures.

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Subscriptions need not all be sent at once. They may be sent in installments as taken and credit will be given on account. When the required number is obtained the premium earned will be shipped.

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THREE subscriptions at $1 each, a safety pocket ax, made by W. L. Marble and listed at $2.50; or a dozen Bass Flies, assorted, listed at $2; or 4 dozen Carbutt plates, 4 x 5 or 5 x 7.

FOUR subscriptions at $1 each, a Khotal Oil Stove, made by the Hydro-Carbon Burner Co., listed at $4; or an Ideal Hunting Knife, made by W. L. Marble and listed at $2.50; or a .32 caliber Automatic Forehand Revolver, made by the Hopkins & Allen Arms Co.; or a No. 822 Rifle made by the Hopkins & Allen Arms Co., listed at $4.50.

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EIGHT subscriptions at $1 each, a 4 x 5 Weno Hawk-Eye Camera, made by the Blair Camera Co., and listed at $8.

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TEN subscriptions at $1 each, a Cut-Glass Salad Bowl, made by Higgins & Seiter, and listed at $4.50; or a Yawman & Erbe Automatic Reel, listed at $6 to $9; or a Bristol Steel Fishing Rod, listed at $6, or less; or a Single Barrel Shot Gun made by Harrington & Richardson Arms Co.; or a Waterproof Wall Tent 7 x 7, made by Abercrombie & Fitch, and listed at $8; or a canvas hunting coat, made by H. J. Upthegrove & Son, listed at $8; or a series 1, 4x5, Korona Camera, made by the Gundlach Optical Co., listed at $12.

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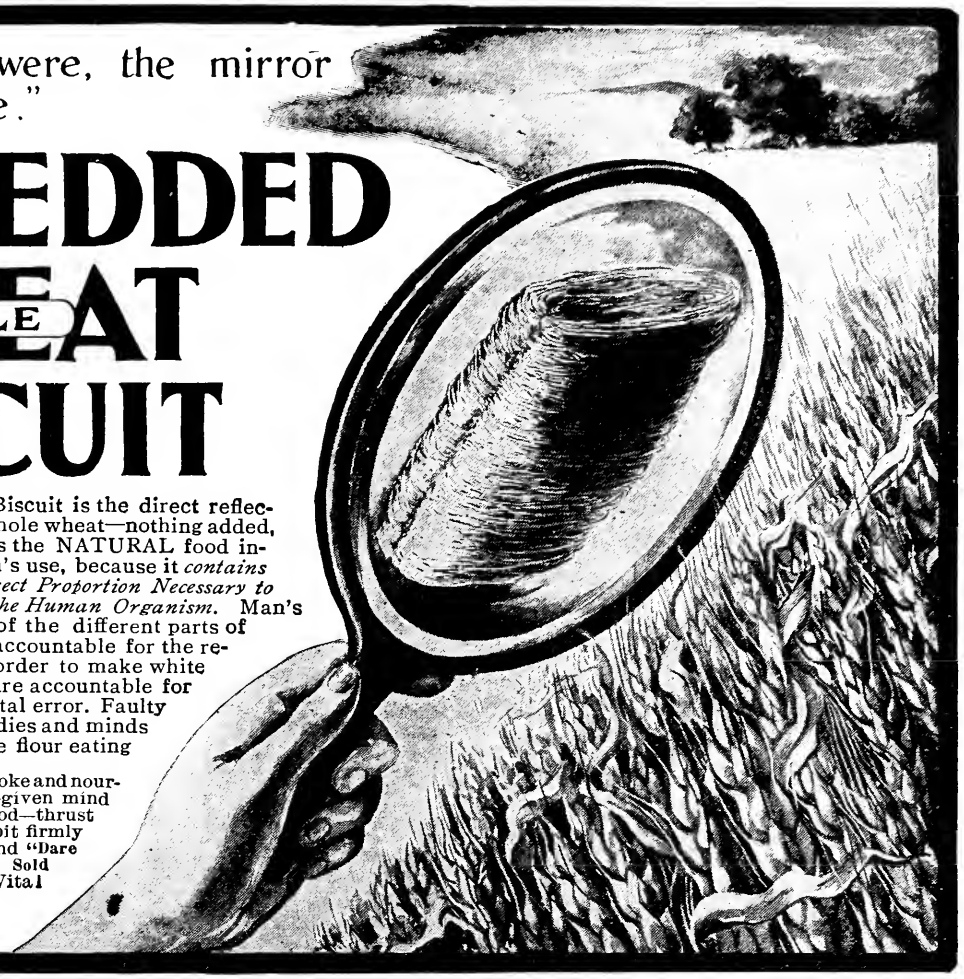

Shredded Whole Wheat Biscuit is the direct reflection of Nature. It is the whole wheat—nothing added, nothing taken away. It is the NATURAL food intended by Nature for man's use, because it *contains All the Properties in Correct Proportion Necessary to Nourish every Element of the Human Organism.* Man's ignorance as to the uses of the different parts of the wheat was originally accountable for the removal of portions of it in order to make white flour. Custom and habit are accountable for the continuance of this vital error. Faulty bones and teeth, weak bodies and minds are the result of the white flour eating "practice."

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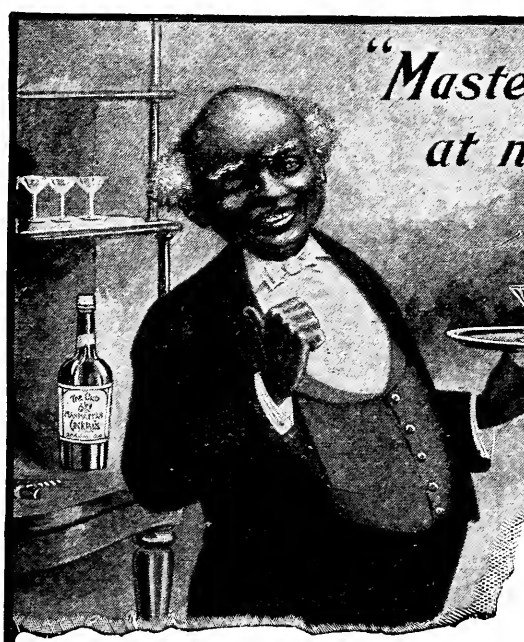

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YOU can do it just as well

Pour over lumps of ice, strain and serve

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I have a Roper 4-shot repeating gun, model '66. The makers retired and I can not find their shells on the market. Can you tell me where I can buy shells for it? Could I have the gun remodeled for present style shells?

W. H. Agnew, Chattanooga, Tenn.

ANSWER.

Shells for the Roper 4-shot repeating shot gun can not now be obtained from dealers. As to remodeling your gun to take ordinary shot gun shells, I hardly think it would be practicable. The expense would be considerable, and would probably amount to as much as the price of a new gun which would be far superior to the remodeled arm.—EDITOR.

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Patent Elastic Felt is cotton mixed with brains.

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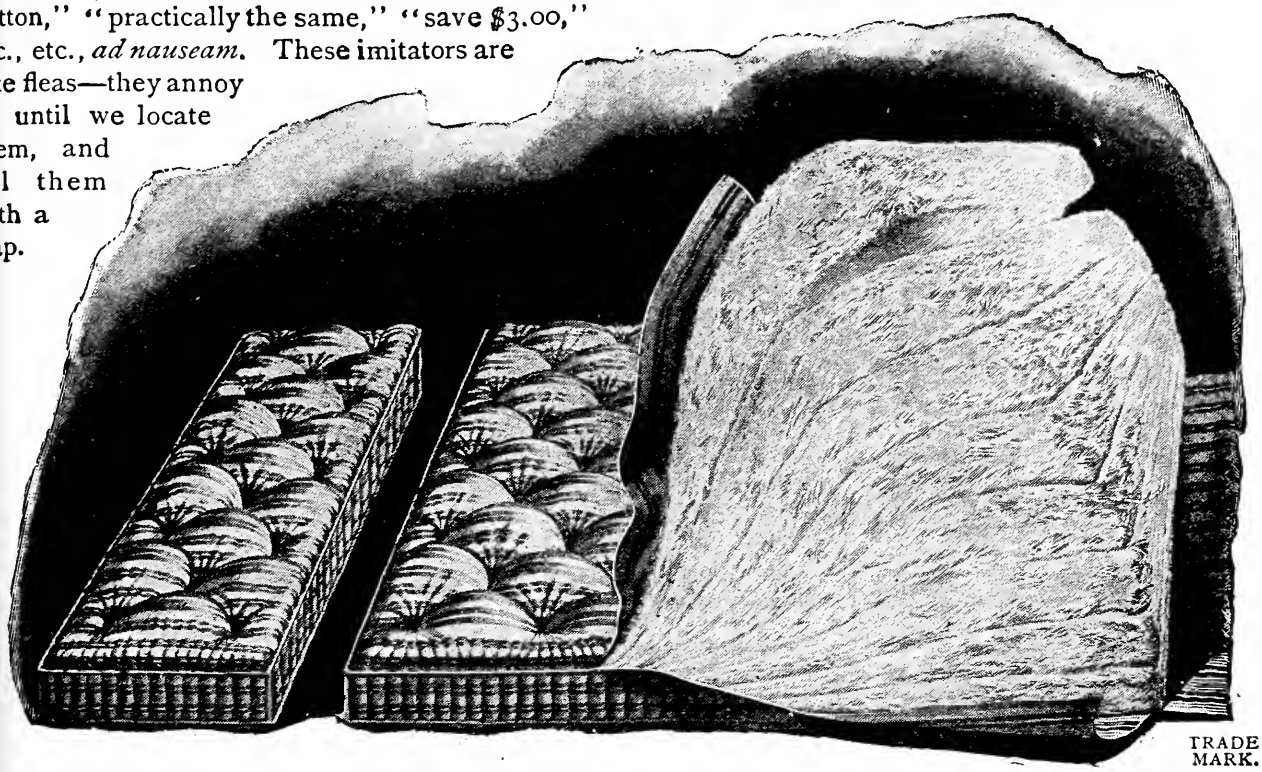

TRADE MARK.

No one can make mattresses of felt, elastic felt or patent elastic felt but Ostermoor & Co., and no one can buy an Ostermoor Mattress except directly from Ostermoor & Co. Our name and guarantee on every mattress. No dealer can supply you—no matter what he says.

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It will be worth your while. It is conceded one of the handsomest advertising books ever made. 72 pages. Cover in colors. Beautifully illustrated. We want you to look it through even if you may probably *never* buy a mattress. Nowadays, it's well to know what is best. Send your name on a postal card to

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only, from the best strains of PEDIGREED STOCK. DOES, 6 to 10 months old, bred to IMPORTED BUCKS, for $3 each. Fine color and strictly O.K. We guarantee all stock as recommended. We have a fine line of BLACK PEDIGREED BELGIANS.

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A few pairs of very fine Fox Squirrels for sale at $4 a pair. I furnish food and water to last to destination, and guarantee safe delivery anywhere within the U. S. or Canada.

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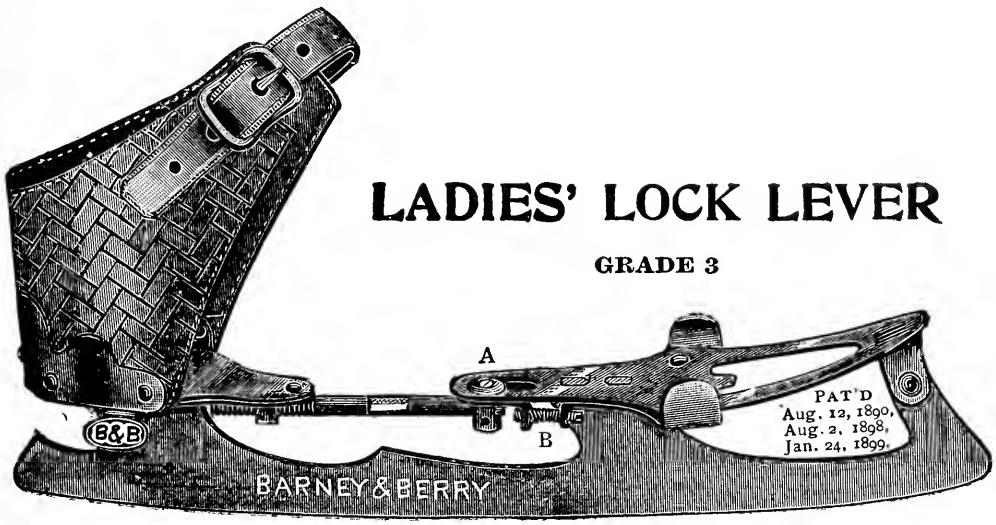
For your best girl, or your brother, or for some other girl's brother, or for any one you love, and who is fond of skating.



For 5 Yearly Subscriptions to RECREATION

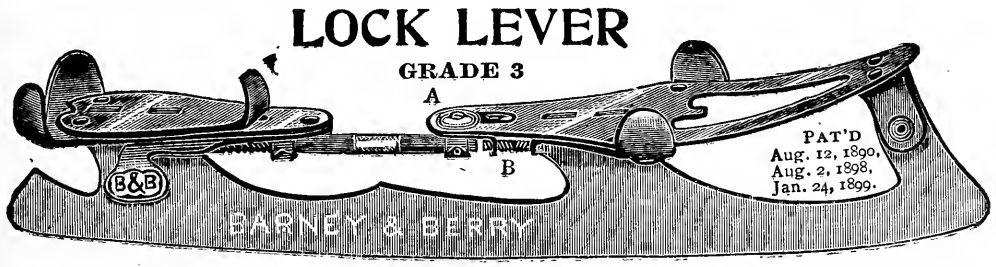
I WILL SEND YOU

A pair of Lock Lever Skates

OR

A pair of Ladies' Lock Lever Skates

Grade 3, made by Barney & Berry, Springfield, Mass.



As every skater knows, these are the best skates made in the world. The winter season is approaching, and you could scarcely select a more appropriate present

FOR A MAN, OR A WOMAN,
A BOY OR A GIRL,

than a pair of these high-grade skates.

Sample copies of RECREATION for use in canvassing furnished on application.

Date,_____ 190

G. O. SHIELDS,

Editor and Manager of RECREATION, 23 West 24th St., New York.

Herewith find $1.00 for which please send me RECREATION one year beginning with_____number.

Name,_____

_____

_____

Remit by P. O. or Express Money Order, or New York Draft.

DETACH THIS, FILL OUT, AND SEND IN.

FOR SALE

Live Bull Moose, 6 years old, a beauty and clever to handle.
Live Bull Elk, 5 years old, very handsome.
Live Pair Antelope, in good shape and clever.
Live Black Female Bear, raised in captivity and a great pet.
Live Deer, Bucks and Does.

These animals can be seen at

Whalom Park, Fitchburg, Mass.
W. W. SARGENT, Supt.

Another Great Chance

I HAVE ON HAND

A WILKESBARRE GUN

($125 Grade, Entirely New)

FINE DAMASCUS BARRELS

that I will give to anyone who will send me 75 yearly subscriptions to RECREATION.

I have only one of these guns, and so the first man who sends me the $75 will get it. Others who may try for the gun and be too late can get for their clubs a Syracuse, Ithaca, Parker or Remington gun, of as high grade as I can afford to furnish.

RELICS OF A DISAPPEARING RACE

BUFFALO SKULLS

WITH POLISHED OR UNPOLISHED HORNS

Also polished or unpolished horns in pairs or single. Polished horns tipped with incandescent electric lights; polished hunting horns; mirrors hung in polished horns, etc. These are decided novelties and are in great demand for sportsmen's dens, offices, club-rooms, halls, etc. Send for illustrated catalog. Mention RECREATION.

E. W. STILES, 141 Washington St., Hartford, Conn.

APPLICATION FOR MEMBERSHIP IN THE L. A. S.

ARTHUR F. RICE, Secretary L. A. S., 23 W. 24th St., New York.

DEAR SIR: Enclosed $1 for membership fee for one year.

I certify that I am eligible to membership in the L. A. S. under the provisions of the constitution, and refer to 2 League members (or to 3 other reputable citizens) named hereon.

References

Name_____

Street or P. O. Box_____

City or Town_____

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Detach this, fill out and send in.

For Exchange: Columbia Graphophone, standard size, oak case, and 3 dozen records, good condition; want Ejector Hammerless Shot Gun, 12 gauge or smaller.

For Exchange: A 22 Gallery Pistol, 6-inch barrel, solid brass frame, nickel-plated. Want Colt or S. & W. Revolver, 38 or 45 caliber preferred.

For Sale: Full-blooded English Pointer (has had about 250 quail shot over him) 20 months old, full pedigree unobtainable; price, $25 cash.

For Sale: Ithaca Ejector Hammerless Shot Gun, 12 gauge, cost $42.50, will take $35, cash; excellent condition.

For Sale: Marlin 22-caliber Rifle, Lyman patent sights, good condition, price $13, cash.

For Exchange: Blue Rock Trap and 1500 Clay Targets. Want 16 or 20-gauge Hammerless Shot Gun or 12-gauge Winchester Trap Gun. Address, Warren Dilsaver, Clinton, Ind.

For Sale or Exchange: 1 4x4 No. 2 Vive Camera, with plush-lined sole-leather case; outfit cost $9.50, will sell for $5; camera holds 36 plates or 100 cut films. 1 Stevens 10-inch barrel, 22 caliber Pistol, globe and peep sights, cost $7.50, sell for $4.50. 1 Colt's Automatic Pistol, cost $25; sell for $20. All the above in condition same as new. Will exchange for Savage, Winchester 30-30 or Remington-Lee Rifle. Cashier First National Bank, Jasper, Texas.

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You can get one for nothing.
Or at least for a few hours' work.

Send me

20 Yearly Subscriptions

to

RECREATION

and I will send you

A TALBOT REEL

Listed at $20.00

Made by W. H. Talbot, Nevada, Mo.

This is one of the finest pieces of fishing tackle ever made. It is built like a gold watch. Equal to any Kentucky reel you ever saw.

In Tournaments, Always a Victor
Among the Angler's Treasures, Always the Chief

I have but a few of these reels in stock, and this offer will be withdrawn as soon as the present supply is exhausted.

Sample copies of RECREATION for use in canvassing furnished on application.

TRY IT! Put on the **"President"** and get into an awkward position. See how readily it adjusts itself.

PRESIDENT SUSPENDERS

Guaranteed if **"President"** is on buckles Trimmings cannot rust. Made heavy or light; also for youths. 50c everywhere or mailed postpaid. Say light or dark—wide or narrow. Ask your dealer for our holiday individual gift boxes. President playing cards, instructive, entertaining, unique, 25c.

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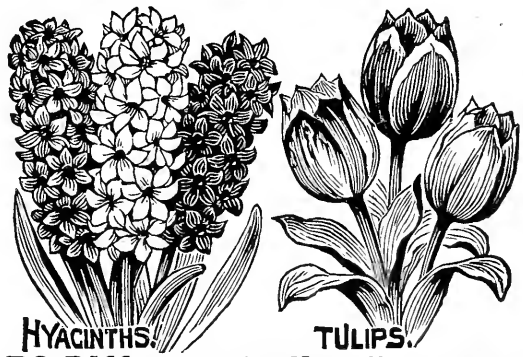
In the following courses for home study: ILLUSTRATING, AD-WRITING, JOURNALISM, PROOFREADING, BOOKKEEPING, STENOGRAPHY, and PRACTICAL ELECTRICITY. You pay us no Tuition Fee until we have secured a position for you. Mention subject that interests you. **Correspondence Institute of America, Box 701, Scranton, Pa.**—Mention Recreation.

SPECIAL FREE OFFER

To any person sending me $1.00 for one year's subscription to RECREATION I will give free a choice of the following: 50 fine Bristol Cards printed to copy in Gold Ink; or 50 Envelopes printed with return card and a cut representing an angler. With the words "If you don't catch him in 10 Days return to ;" or 50 Noteheads neatly printed. Write plainly to avoid mistake in printing. Samples of printing for stamp. Or I will give free a Bottle of Silver Plating Fluid for plating all kinds of metal surfaces; or a Bottle of White Rose Cream for the complexion. Either new or old subscribers may take hold of this offer. Send money by registered letter. Address

HENRY NELSON, ECKVOLL, MINN.

For Sale or Exchange: 1 double-barrel hammerless shot gun; 12 gauge, 30-inch barrels; new. J. M. Smith, Clover, S. C.



50 Different Bulbs all for 30c.

By mail with cultural directions, for garden or pots.

1 Golden Sacred Lily.	**3 Ixias,** 3 sorts.
2 Tulips, 1 d'ble, 1 single.	**3 Sparaxis,** 3 sorts.
2 Narcissus, " "	**3 Alliums,** 3 sorts.
3 Belgian Hyacinths.	**3 Tritelela,** white star.
3 Grape Hyacinths.	**3 Saxifraga,** double white.
3 Giant Crocus.	**5 Giant Ranunculus.**
3 Star of Bethlehem.	**5 Spanish Iris.**
3 Oxalis, 3 sorts.	**5 Freesias,** mixed.

All different colors, and fine flowering hardy bulbs.

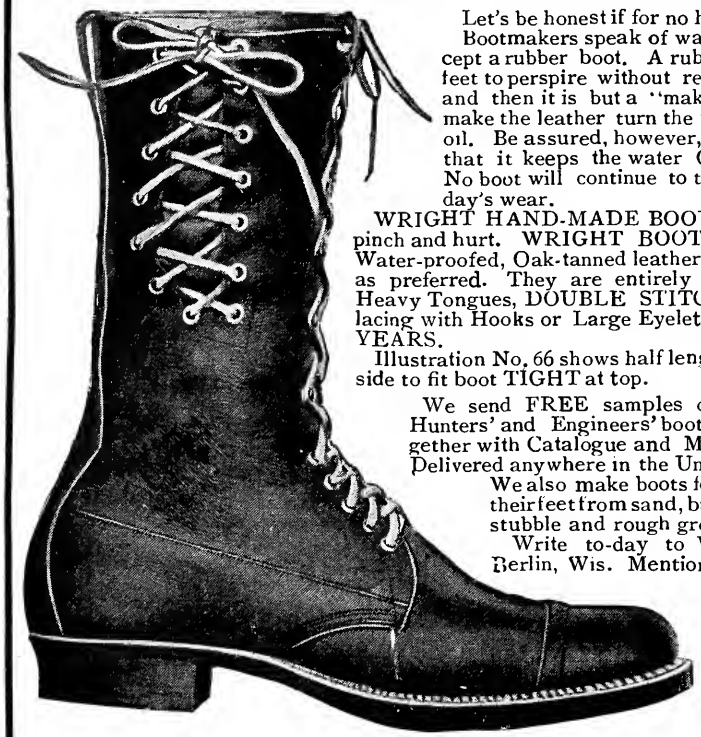
Also **Free** to all who apply, our elegant **Fall Catalogue** of Bulbs, Plants and Seeds, for Fall planting and Winter blooming Choicest Hyacinths, Tulips, Narcissus, Crocus, Lilies, Plants, Shrubs and Fruits.

New Winter flowering Plants and Bulbs, Crimson Daisy, Blue Coleus, Cardinal Freesia, Branching Tulip, etc.

John Lewis Childs, Floral Park, N.Y.

THE RIGHT BOOTS ARE THE WRIGHT BOOTS

"Wright Wrongs No Man"



Let's be honest if for no higher reason than that it PAYS.

Bootmakers speak of waterproof boots. No boot is waterproof except a rubber boot. A rubber boot is hard to walk in and causes the feet to perspire without relief. A hole is soon made in a rubber boot and then it is but a "makeshift." All that any bootmaker can do to make the leather turn the water is to treat it with good, old fashioned oil. Be assured, however, that if the leather is saturated to the extent that it keeps the water OUT it will also keep the perspiration IN. No boot will continue to turn the water unless it is oiled after each day's wear.

WRIGHT HAND-MADE BOOTS FIT THE FEET, where "readymades" pinch and hurt. WRIGHT BOOTS are Hand Sewed and have best quality Water-proofed, Oak-tanned leather soles. We "waterproof" our boots or not, as preferred. They are entirely hand-made and show the hide grain, have Heavy Tongues, DOUBLE STITCHED BOTH SIDES. They are fitted for lacing with Hooks or Large Eyelets, as desired. OUR BOOTS WEAR FOR YEARS.

Illustration No. 66 shows half length leg, 14 inches high, wide leather laces at side to fit boot TIGHT at top.

We send FREE samples of leather used in our Hunters' and Engineers' boots for your selection, together with Catalogue and Measurement Blanks. Delivered anywhere in the United States for $6.50.

We also make boots for dogs to protect their feet from sand, burrs, cactus needles, stubble and rough ground.

Write to-day to Wright Company, Berlin, Wis. Mention RECREATION.

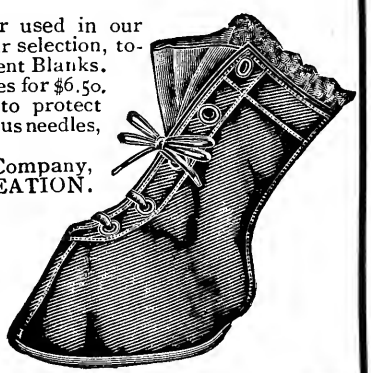


ILLUSTRATION NO. 66, $6.50

Huron Indian Work: To any one subscribing to RECREATION through me I will give a Bracelet and Ring worked in horsehair, with any small inscription you like, your name, etc., woven in it with caribou hair; quite a curiosity, Send along your $1. Walter Legare, 518½ John Street, Quebec, Canada.

Do You Want a Drinking Cup Free? Send me $1 for a new subscription to RECREATION and I will send you either a fine nickel-plated folding drinking cup or a collapsible rubber cup. For 10 cents extra will send by registered mail. Thomas H. Walker, 295 Merrimac Street, Manchester, N. H.

Free: Cloth bound book, 766 pages, finely illustrated, on our war with Spain, given free to each one who subscribes for RECREATION through me. Address, C. L. Wyckoff, Cuba, N. Y.

Free: To anyone sending me $3 for three subscriptions to RECREATION I will send a pair of pretty Flying Squirrels. For seven subscriptions I will give a fine pair of Fox Squirrels. E. F. Pope, Colmesneil, Texas.

Wanted: Gamekeeper for a large preserve. Must also be practical farmer and gardener, and must understand care and handling of horses. Address, S. G., care RECREATION.

Do you want a Good, Reliable Substantial, Well Made

Single Barrel Shot Gun

If so, send me

10 YEARLY SUBSCRIPTIONS

and I will send you such a Gun as a premium

It is made by the *DAVENPORT ARMS CO.*, and this means it is made of good material and that only good workmanhip is put on it.

This is one of the many remarkable opportunities *RECREATION* is offering to men and boys to fit themselves out completely for shooting and fishing.

Sample Copies for Use in Canvassing Furnished on Application.

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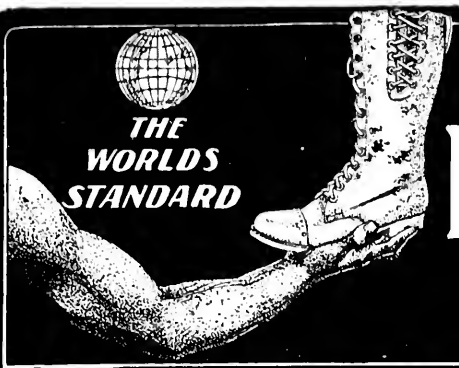
23 W. 24th St., New York City



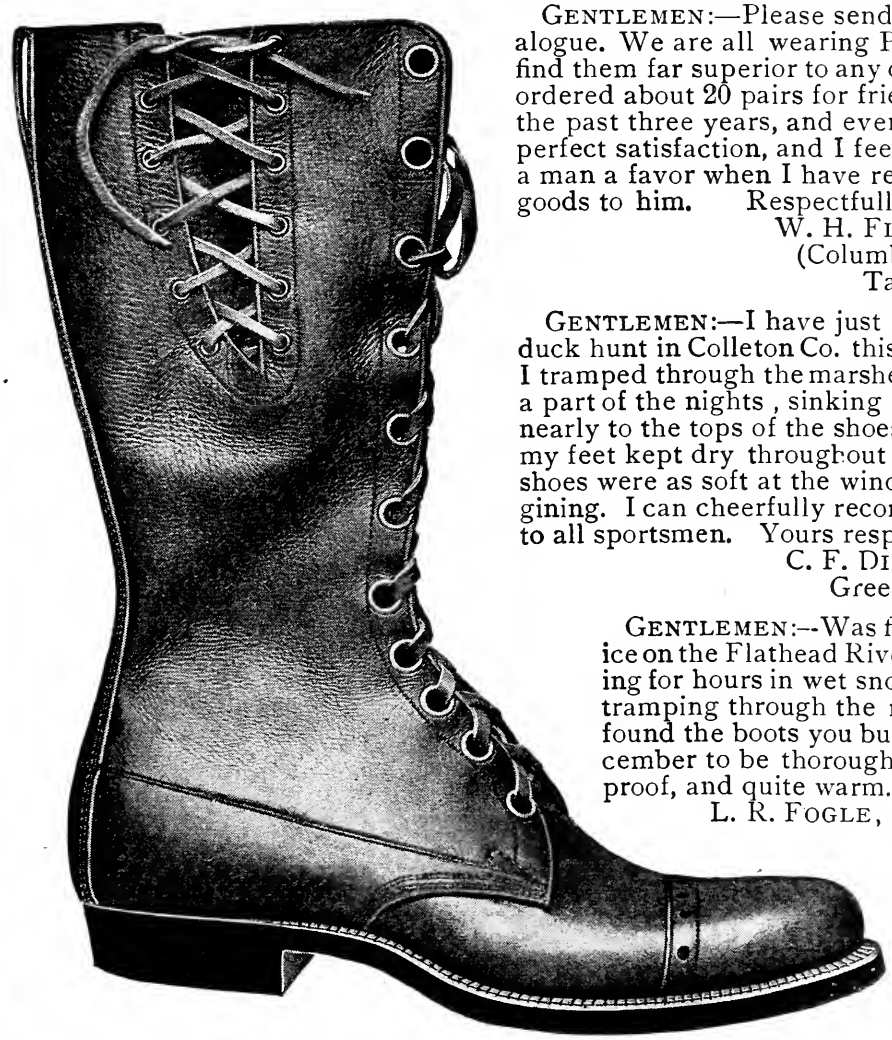
THEY'RE MADE TO MEASURE

Putman Boots.

Go on like a glove *and* fit all over.

For a **Quarter of a Century** Putman Boots have been the Standard among Western Hunters, Prospectors, Ranchmen and Engineers (who demand the best) and we have learned through our personal contact with them **how** to make a perfect boot.

Putman Boots are in use in nearly every civilized country in the World. They are Genuine Hand Sewed, Water proof, Made to measure, Delivery charges prepaid, and cost no more than others. Send for Catalogue of over **30 different styles** of boots. Also **Indian Tanned Moosehide Moccasins.** We send with catalogue Order Blanks showing how to measure your foot.



We have in our files thousands of letters similar to the following.

GENTLEMEN:—Please send me another catalogue. We are all wearing Putman Boots and find them far superior to any other boot. I have ordered about 20 pairs for friends here during the past three years, and every pair has given perfect satisfaction, and I feel that I have done a man a favor when I have recommended your goods to **him.** Respectfully,

W. H. FLUKER, Gen. Mgr,
(Columbia Mining Co.)
Tatham, Ga.

GENTLEMEN:—I have just returned from a duck hunt in Colleton Co. this state, and though I tramped through the marshes for six days and a part of the nights, sinking in mud and water nearly to the tops of the shoes I got from you, my feet kept dry throughout the trip and the shoes were as soft at the wind-up as at the begining. I can cheerfully recommend your shoes to all sportsmen. Yours respectfully,

C. F. DILL,
Greenville, S. C.

GENTLEMEN:—Was fishing through the ice on the Flathead River this week standing for hours in wet snow and slush and tramping through the mountains, and I found the boots you built for me in December to be thoroughly water and snow proof, and quite warm. Yours truly.

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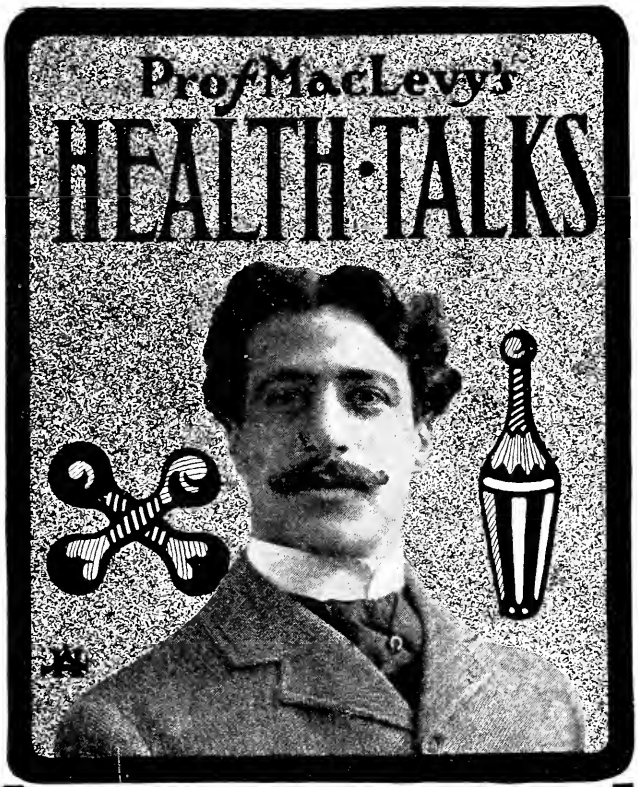
Illustration shows No. 900, 14 inch Boot, made to measure and delivered in U. S. for

$7.50.

H. J. PUTMAN & CO., 36 HENNEPIN AVE. **Minneapolis. Minn.**



MY "HEALTH TALKS" you will find in all the leading magazines every month. Read them carefully; they will do you good.

Perhaps you would like to take up the study of Physical Culture, to benefit yourself; if so, I want you to join my school. I instruct you by mail. *You don't deal with an office force simply, who only deal out printed matter.* You deal with a finely equipped Physical Culture Institute. The plant alone cost $25,000—contains gymnasium, baths, resting-rooms, swimming pool, etc. I not only send you printed instructions and charts, but valuable apparatus. I can make you healthy and strong. I have been doing it for fifteen years, and I have thousands of testimonials. Five doctors in one large life insurance company have been members of my Institute. Men, women and children receive instruction. Mrs. MacLevy, with competent lady assistants, has full charge of the Women's Department.

To further introduce my courses by mail, and for a limited time, I offer to well-recommended persons

FREE INSTRUCTION

in a full course of Physical Culture, covering a period of from three to six months (*the only expense being the postage* during the term, the cost of printed matter and apparatus; and you can *pay me these incidentals as you study*). The regular price of the course is $50.

I graduate young men and women every year as Physical Directors for Athletic Clubs, and place them in paying positions.

Write me for full particulars and reproductions of photos of my Institute.

MAC LEVY INSTITUTE OF PHYSICAL CULTURE

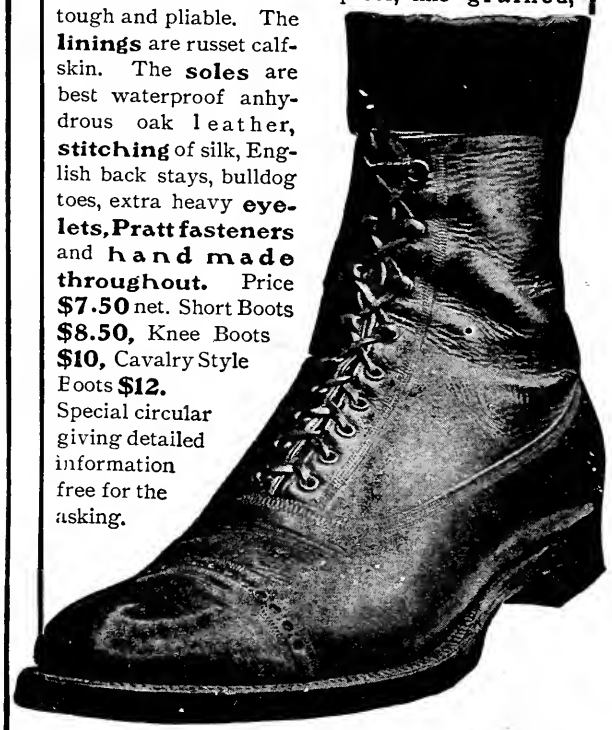
Hotel St. George, Corres. Dept., O, BROOKLYN, N. Y.

Reference: Union Bank of Brooklyn, Brooklyn, N.Y.

SQUIRES' SIBERIAN MOOSE HUNTING BOOTS & SHOES

Made only by **HENRY C. SQUIRES & SON**
20 Cortlandt St., New York

The **leather** is waterproof, fine grained, tough and pliable. The **linings** are russet calfskin. The **soles** are best waterproof anhydrous oak leather, **stitching** of silk, English back stays, bulldog toes, extra heavy **eyelets, Pratt fasteners** and **hand made throughout.** Price **$7.50** net. Short Boots **$8.50,** Knee Boots **$10,** Cavalry Style Boots **$12.** Special circular giving detailed information free for the asking.



Mention RECREATION.

The Celebrated

THOMPSON-QUIMBY

Hunting Boots, Shoes and Moccasins

All Work Guaranteed

I have on file measurements of all old customers who have bought the celebrated Thompson Hunting Boots and Shoes of the W. Fred Quimby Co. of New York for the past 20 years, and am prepared to make the same grade of sportsmen's footwear as in the past. I was formerly superintendent of the shoe department of that firm and have bought out the right to make these boots and shoes. Measurement blanks and prices on application. Mention RECREATION

THOMPSON

T. H. Guthrie

33 William Street, NEWARK, N. J.

When you play with Bicycle Playing Cards you hold Good Cards.

Popular price. Sold by dealers.
29 backs. Design shown is "Rider" back.

The U. S. Playing Card Co.
Cincinnati, U. S. A.

CONLEY'S COMBINATION HUNTING COAT AND VEST.

The Most Useful Coat to Sportsmen

It is made of the best 8-oz. plain and rubberized duck of dead grass color, and is absolutely waterproof.

Order direct from the factory. The hunter is our only agent.

Rubberized, - $5.00
Unrubberized - 4.50

You can use it for a long rain coat, a duck blind or sleeping bag. You can save yourself from dampness and cold, which costs money in the end. It will last a lifetime.

Enclose stamp for booklet.
Mention RECREATION.

CONLEY MFG. CO., St. Joseph, Mo.

"The Automatic Reel did it."
Caught by H. H. Fraser, St. Johns, N. F.
No slack line—when fish is hooked, the little finger instantly releases spring which winds the line automatically. This continual pull prevents fish from dislodging hook from his mouth. When once hooked, he's your fish. Reel can be made free-running for casting.
Prizes
For particulars ask any sporting goods dealer, or send direct, for "Booklet X."
"Little finger does it!"
Yawman & Erbe Mfg. Co.,
ROCHESTER, N. Y.

"Queen of Sea Routes"
TO
Florida and the South
MERCHANTS & MINERS TRANS. COMPANY STEAMSHIP LINES
between Baltimore and Savannah; Boston, Norfolk and Baltimore; Philadelphia and Savannah; Providence, Norfolk and Baltimore.
Accommodations and Cuisine Unsurpassed
"Finest Coastwise Trips in the World"
Send for Winter Excursion Book.
J. C. WHITNEY, 2d V. P. and T. M. W. P. TURNER, G. P. A.
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SOME GOOD GUIDES.

Following are names and addresses of guides who have been recommended to me, by men who have employed them; together with data as to the species of game and fish which these guides undertake to find for sportsmen.

If anyone who may employ one of these guides should find him incompetent or unsatisfactory, I will be grateful if he will report the fact to me.

FLORIDA.

Cason Bros., Frostproof, bear, deer, turkeys, quail, snipe.
C. H. Stokes, Mohawk, deer, alligators, turkey quail and snipe.

IDAHO.

John Ching, Kilgore, elk, bear, deer, antelope, mountain sheep, trout and grouse.
Chas. Pettys, Kilgore, ditto

MAINE.

W. C. Holt, Hanover, moose, caribou, deer, grouse and trout.
H. R. Horton, Flagstaff, deer, bear, moose, caribou, fox, grouse and trout.

MONTANA.

James Blair, Lakeview, elk, bear, deer, trout and grouse.
A. T. Leeds; Hamilton, ditto
Chas. Marble, Chestnut. ditto
Wm. R. Waugh, Darby, moose, bear, elk, deer, sheep, rocky mountain goat, grouse and trout.
A. Leeds, Hamilton, ditto

VIRGINIA.

W. T. Gladding, New Church, quail, snipe, ducks and woodcock.

WYOMING.

Frank L. Peterson, Jackson, elk, bear, deer, mountain sheep, antelope, grouse and trout.
S. N. Leek, Jackson, ditto
James L. McLaughlin, Valley, elk, bear, deer, mountain sheep, antelope, grouse and trout.
Felix Alston, Irma, ditto

CANADA.

W. A. Brewster, Banff, Rocky Mountain Park, Can., bear, sheep, goats, grouse and trout.
Wm. S. Andrews, Lillooet, B. C., deer, bear, mountain sheep, goats, grouse and trout.
B. Norrad, Boiestown, N. B., moose, caribou, grouse and trout.

For Exchange: Winchester Repeating Rifle, 32-20 (new); 850 32-20 Winchester bullets; 32-caliber shell resizing die; *complete files* of Sportsman Journal, 1883 to 1896 (13 years) and many other things. Want good coin or stamp collection. John P. Cooper, 38 Peters Place, Red Bank, N. J.

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The Red "D" Line of Steamships
U. S. Mail Contract Steamers
BETWEEN
NEW YORK PORTO RICO, CURACAO and VENEZUELA
Sailing from Robert Pier, No. 10, Brooklyn
FOR FREIGHT OR PASSAGE APPLY TO
BOULTON, BLISS & DALLETT, General Managers
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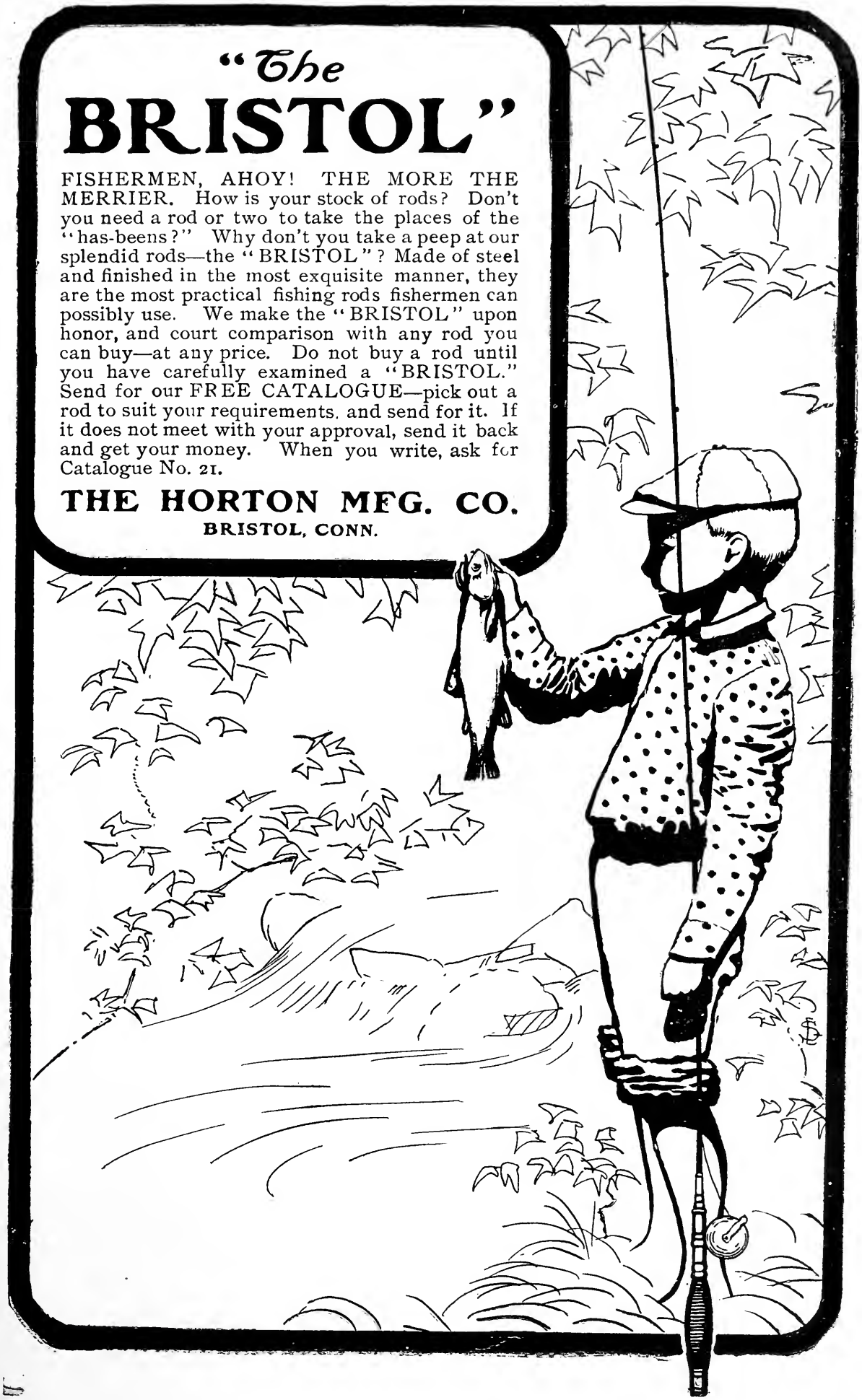
"The BRISTOL"

FISHERMEN, AHOY! THE MORE THE MERRIER. How is your stock of rods? Don't you need a rod or two to take the places of the "has-beens?" Why don't you take a peep at our splendid rods—the "BRISTOL"? Made of steel and finished in the most exquisite manner, they are the most practical fishing rods fishermen can possibly use. We make the "BRISTOL" upon honor, and court comparison with any rod you can buy—at any price. Do not buy a rod until you have carefully examined a "BRISTOL." Send for our FREE CATALOGUE—pick out a rod to suit your requirements, and send for it. If it does not meet with your approval, send it back and get your money. When you write, ask for Catalogue No. 21.

THE HORTON MFG. CO.
BRISTOL, CONN.



GOING DUCK SHOOTING?

IF SO, YOU SHOULD HAVE A

Conley Combination Hunting Coat and Vest

Made of 8 oz. Rubberized Duck, Dead Grass Color

You can use it for

A LONG RAIN COAT

A SHORT HUNTING COAT

A DUCK BLIND

OR A SLEEPING BAG

Game pockets and cartridge holders *ad lib.*

Save yourself from dampness and cold.

Send me

5 Yearly Subscriptions to RECREATION

Name your size and I will send you one of these coats.

Sample copies of RECREATION, for use in canvassing, furnished on application.

Established 1840

Geo. B. Carpenter & Co.

MAKERS OF HIGH GRADE

TENTS, SAILS, CAMP FURNITURE

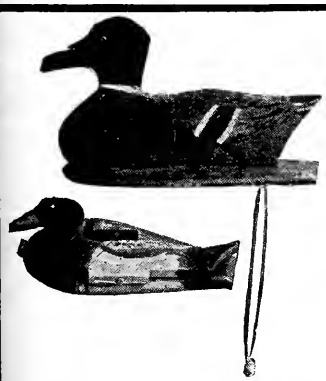
Folding Cots
Tables and Chairs

Oars, Paddles
Marine Hardware

The Largest and Most Complete Stock in the U.S

Send 4c. in stamps for Tent and Camp Catalogue, or
6c. in stamps for Marine Hardware Catalogue.

200, 202, 204, 206, 208 S. Water St., Chicago, Ill.



NOTHING AS GOOD AS THE

"Dinger" Wooden Take-Down Decoys

Can be set up in an instant, and combine the **Lasting** qualities of the heavy, solid wooden decoys, and the compactness and lightness of the collapsible kinds. One dozen weigh less and can be packed in a smaller space than two old style wooden decoys.

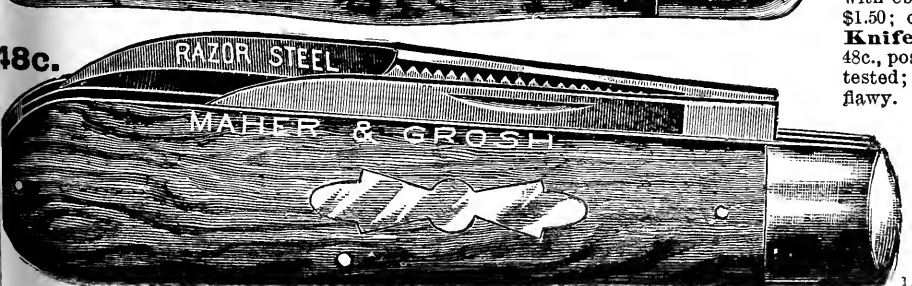
They Move or sail about in the lightest breeze in a life-like manner, and are very alluring; in fact, the ducks have a preference for them.

Cannot Tip Over and can be set up on the ice. Nicely painted, substantially made. Put up in neat carrying box. Made only in Mallards and Blue Bills.

Price per Dozen, complete, $5.00
Discount to Dealers

H. S. DILLS, Patentee and Manufacturer,
21 11th St., AUBURN, IND.

Are You a Doubting Thomas? Have You Ever Tried Us?



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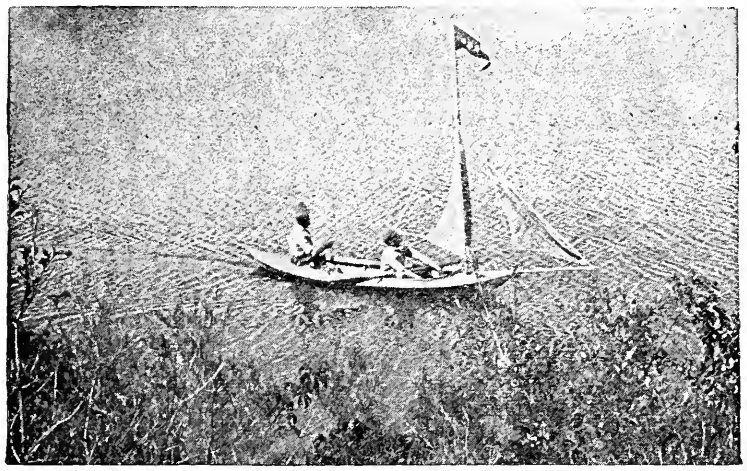

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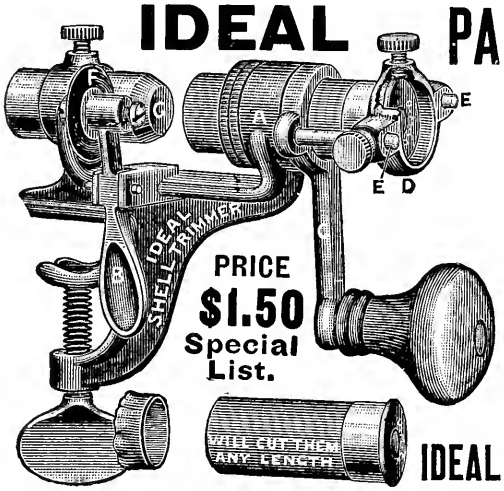

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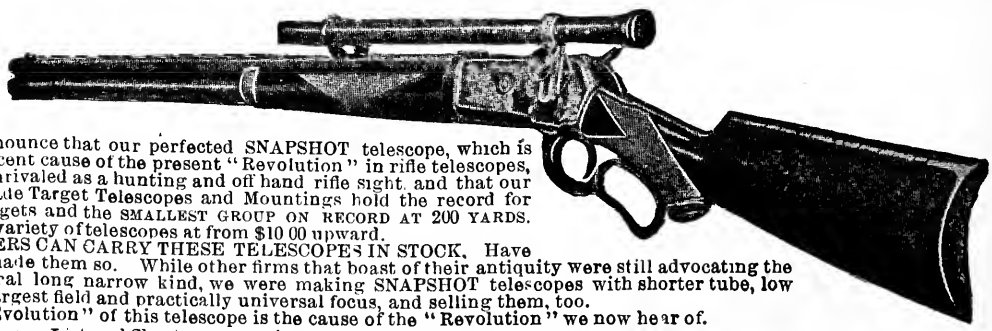

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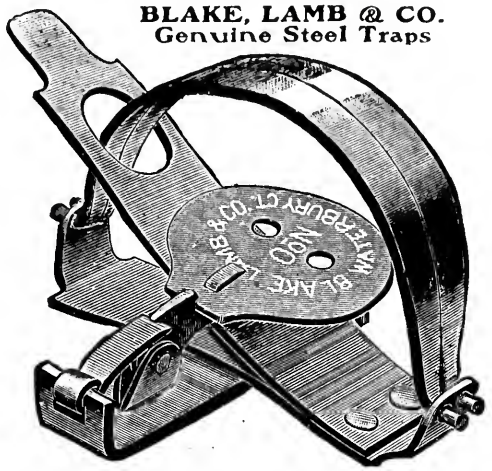

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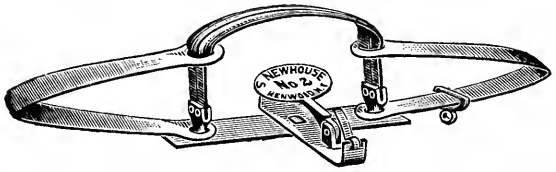

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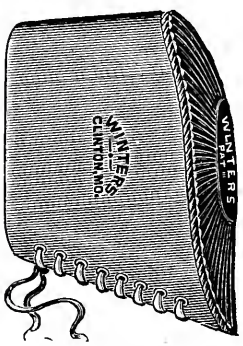

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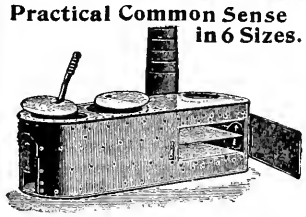

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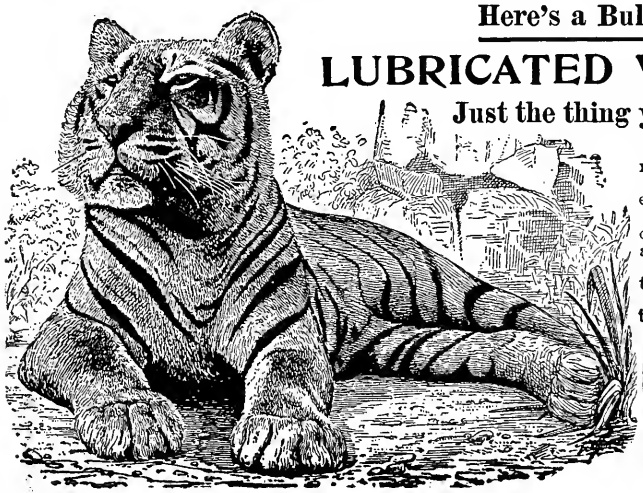

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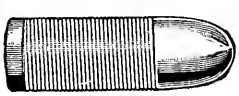

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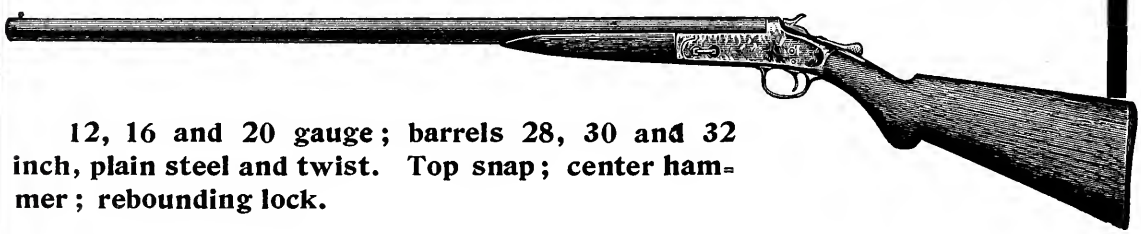

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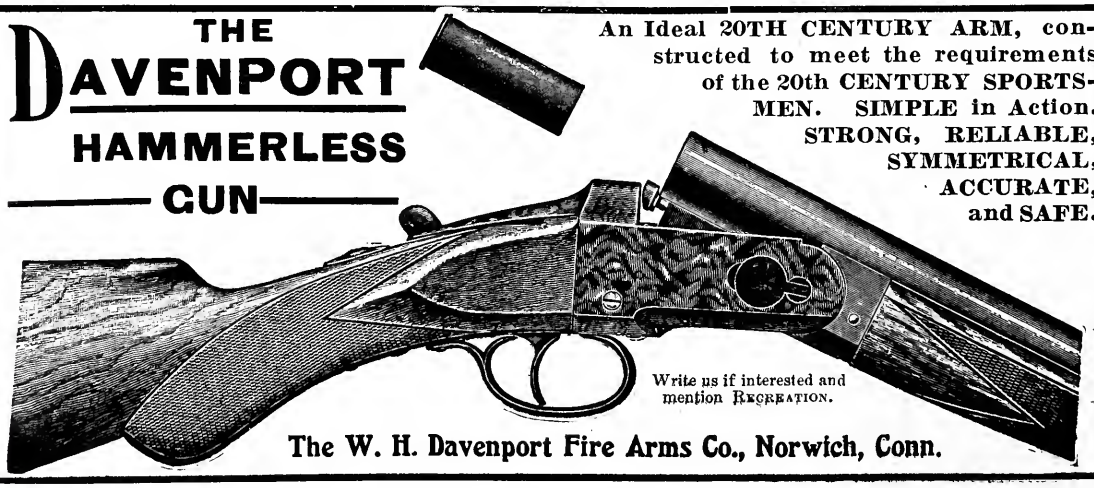

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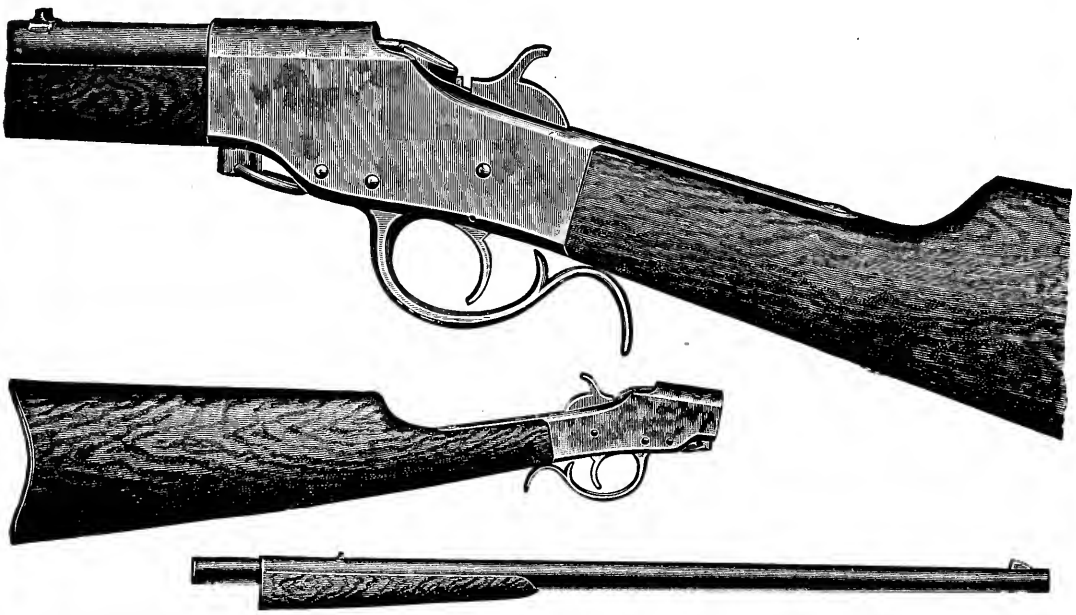

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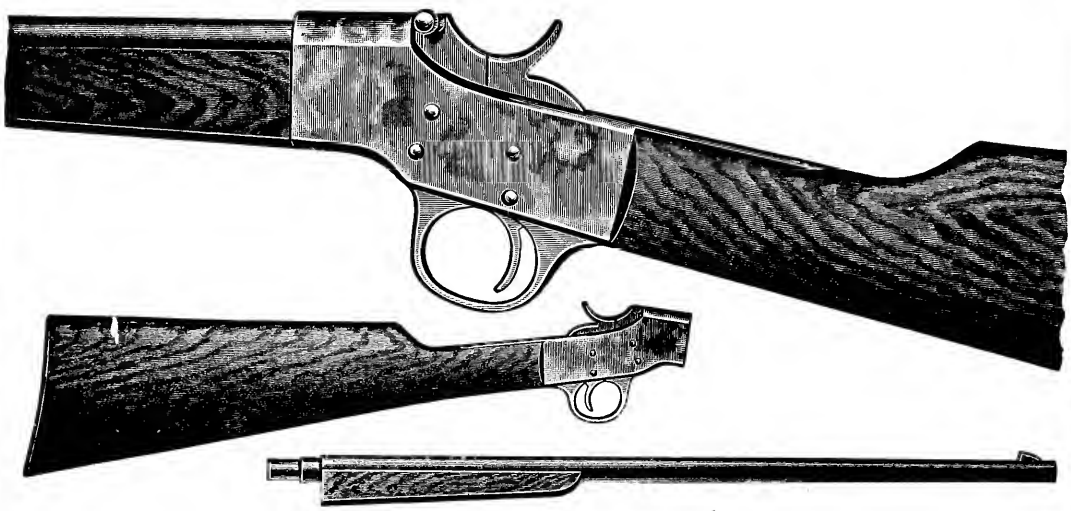

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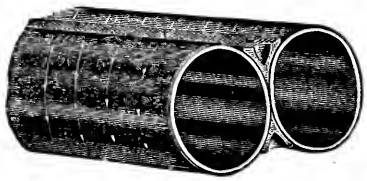

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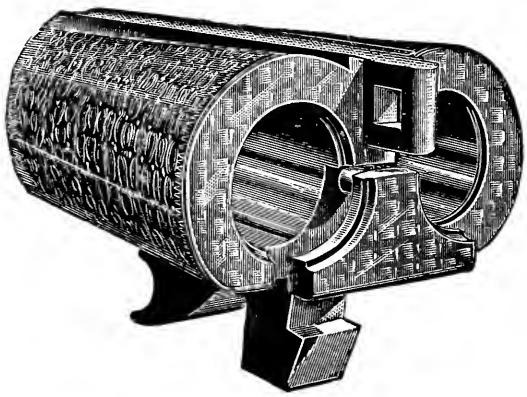

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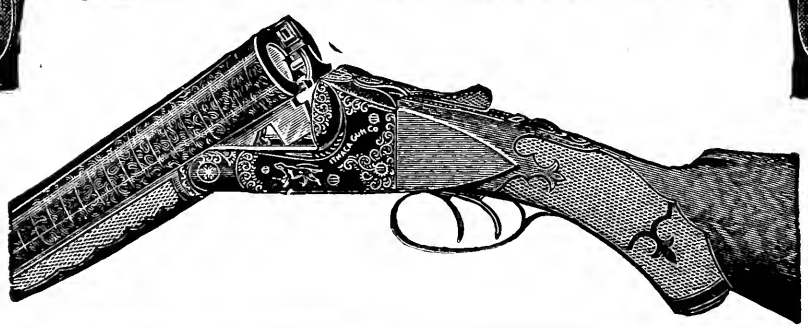

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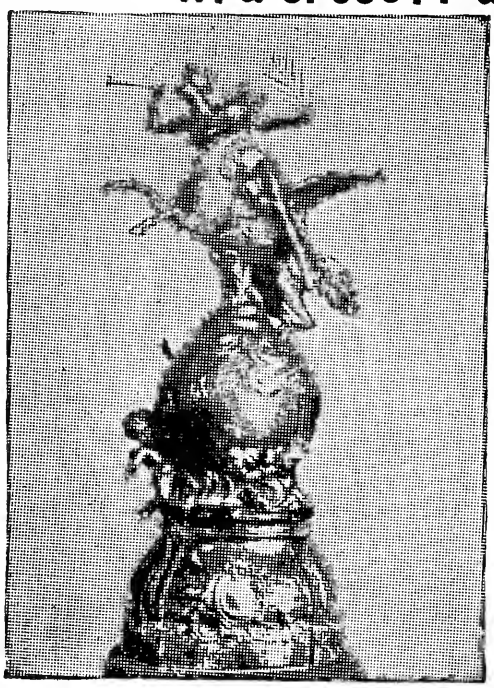

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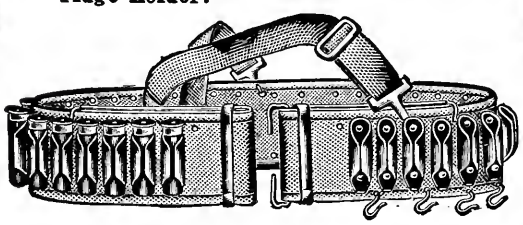

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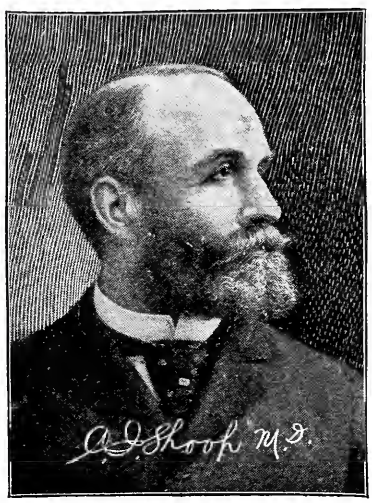
I mean just what I say. I am addressing people who can't be reached by deceit. And most of those who read this are honest; I am counting on that.



I will do as I promise, invariably and gladly. I have done so for years. I have furnished my treatment to hundreds of thousands on those terms. My records show that 39 out of each 40 pay because it succeeds. When it fails, not a penny is wanted. Your druggist collects from me.

You may wonder why I do this, and I'll tell you.

One reason is that I have so perfected my Restorative that it does not often fail.

Another is the absolute faith within me that all that is required in almost any case—no matter how difficult—is a test by the sick one. How could I better secure that test than by saying: "Here are six bottles of my Restorative—use it 30 days. If it cures, pay your druggist $5.50; if it fails the loss is mine."

This remedy alone strengthens the *inside* nerves. Those are not the nerves that others doctor—the nerves of feeling and motion. I strengthen the inner nerve system which alone operates the vital organs of the body. I don't treat the organs, for that is an error. But I bring back the nerve power which makes all vital organs act. You will know that I am right, when you read my book, and you will know why common treatments fail.

The final reason for my offer is this: I want those who need help to have it. I wish to offer that help on conditions so fair that none may neglect it.

Will you—for a friend's sake—tell me somebody whom other remedies don't cure?

Simply state which book you want, and address Dr. Shoop, Box 214, Racine, Wis.

Book No. 1 on Dyspepsia.
Book No. 2 on the Heart.
Book No. 3 on the Kidneys.
Book No. 4 for Women.
Book No. 5 for Men (sealed.)
Book No. 6 on Rheumatism.

Mild cases, not chronic, are often cured by one or two bottles. At all druggists.

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The refreshing odor of FAIRBANK'S GLYCERINE TAR SOAP reminds one of the fragrance of a Pine Forest. It cleanses, heals, purifies and acts as an antiseptic tonic for both skin and scalp. It cuts grease, grime and dirt more thoroughly than other Soaps—is therefore *preferable* for the toilet, bath and shampoo.

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If your grocer or druggist doesn't keep it, write us for a **FREE SAMPLE CAKE, POSTPAID.**

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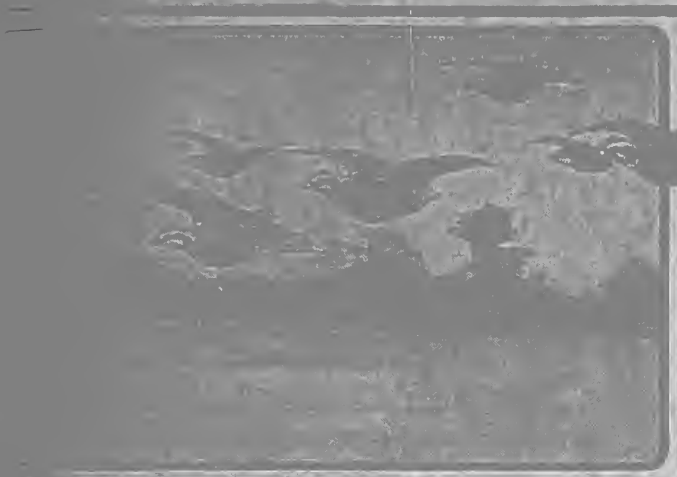
Also makers of **GOLD DUST.**



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October weather, a good dog and gun—what more? To make your good time complete take the best shells with you.

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Factory loaded with any brand of reliable black or smokeless powder, will shoot when you wish them to, and are uniform in pattern, velocity, penetration, and recoil.

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WE have adapted the Winchester Model 1895 box magazine repeating [illegible] new Smokeless Powder cartridge, known as the Winchester .35 Caliber [illegible] most powerful shooting cartridge, at both long and short ranges ever [illegible] for this cartridge are made with 24 inch round nickel-steel barrels, and [illegible] 8 1-2 lbs. The Winchester .35 Caliber Cartridge embodies high velocity and [illegible] trajectory, great energy and striking power, making it a very desirable cartridge [illegible] the biggest game known. Some idea of its tremendous killing power may be gained [illegible] fact that the striking energy of this cartridge at 200 yards equals the muzzle energy [illegible] .45-70. This cartridge is loaded with a 250 grain soft point metal patched bullet and [illegible] Smokeless powder, which imparts to the bullet a muzzle velocity of 2,200 foot seconds [illegible] developing a muzzle energy of 2,685 foot pounds. The penetration at 15 feet from the [illegible] is 15 7-8 inch pine boards. Owing to their size and high velocity, .35 Caliber soft point [illegible] upset, or mushroom, in a most perfect manner. Send for circular fully describing [illegible]

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Many highly organized persons cannot digest even one cup of coffee a day.

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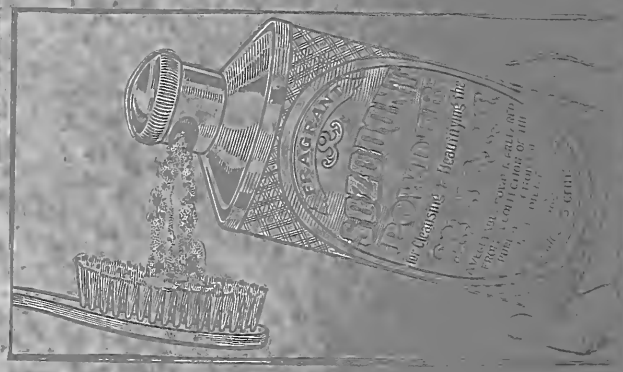

Sozo[illegible]T

Tooth Po[illegible]

Big Box! New [illegible]

This Powder is absolutely [illegible] from grit, finely flavored, is [illegible] ceous, refreshing, and [illegible] effectually cleaning and [illegible] purifying the breath and [illegible] Sold at all stores, or by [illegible] Address HALL & [illegible] York.

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have been established [illegible] By our system of payments [illegible] circumstances can own a VOSE [illegible] old instruments in exchange and deliver the new piano [illegible] free of expense. Write for catalogue D and explanations.

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VOLUME XVII.
NUMBER 5

NOVEMBER, 1902

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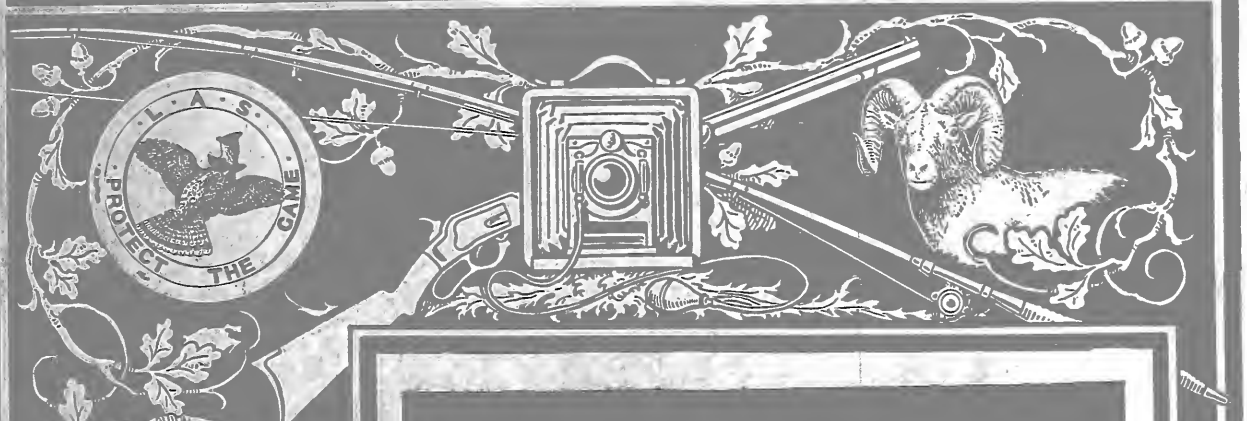

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WELL DONE.

PUBLISHED BY G. O. SHIELDS (COQUINA)
23 WEST 24TH ST., NEW YORK

OFFICIAL ORGAN OF THE LEAGUE OF AMERICAN SPORTSMEN

SNOW SLIDES IN THE CANADIAN ROCKIES;

By G. O. SHIELDS. Illustrated with 10 photographs. The story doesn't amount to much, but the pictures are all right, even if I did make them.

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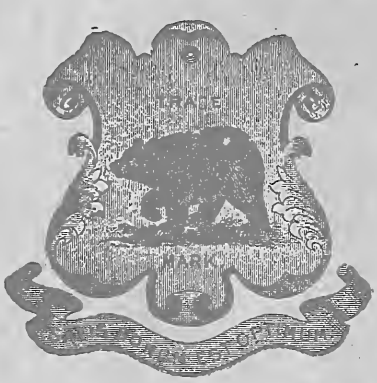

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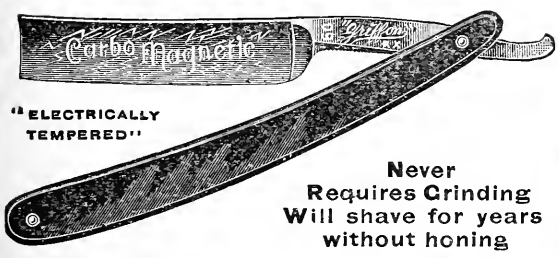

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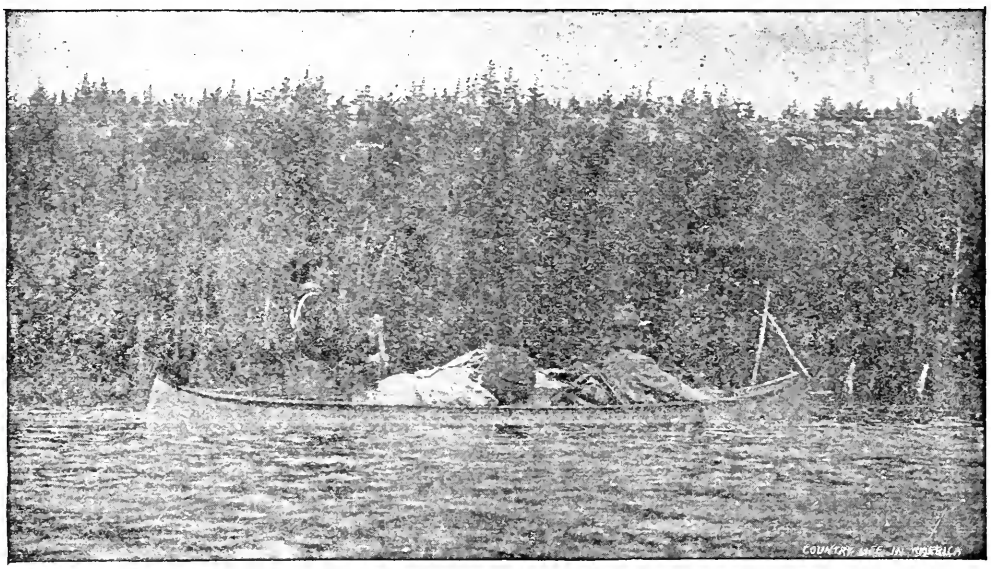
Either explore some of the millions of square miles of territory in the United States or Canada where white man has never trod; take a canoe trip through some of our forest highways or pitch your tent on the bank of a babbling brook.



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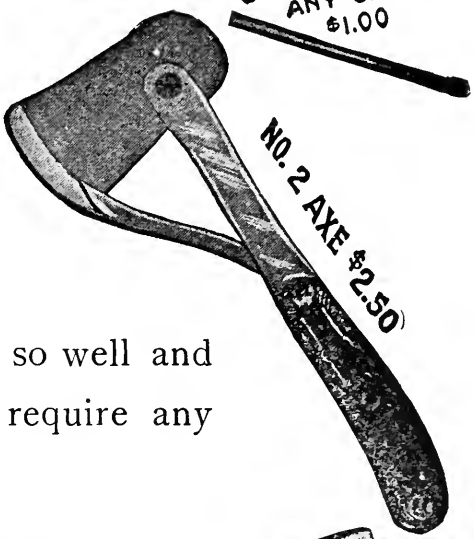
Things Sportsmen Want

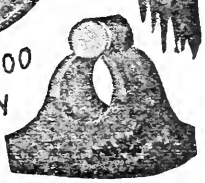


The most of our specialties are so well and favorably known that they do not require any special mention. The merits of our

Ball Bearing Cleaning Rods
Improved Front Sight for Rifles
Sure Grip Broken Shell Extractors and
Solid Comfort Seat Pads

should be carefully considered before completing your outfit for the fall hunting trip.

Our folder A will be sent free on receipt of your name and address on a postal card.



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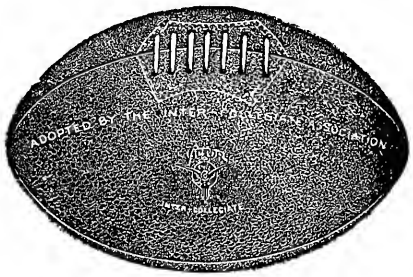

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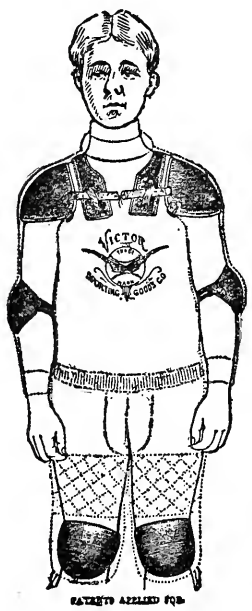

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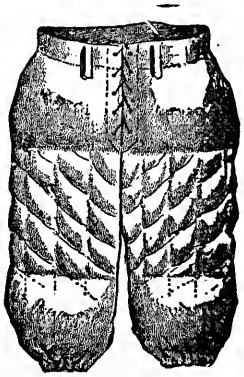
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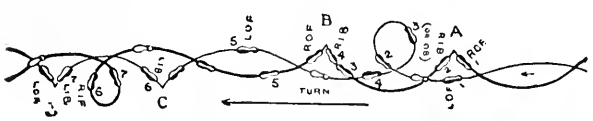

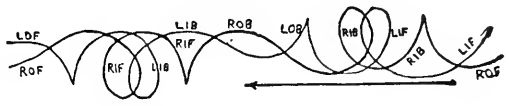

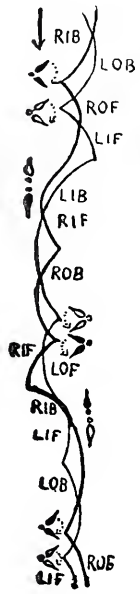

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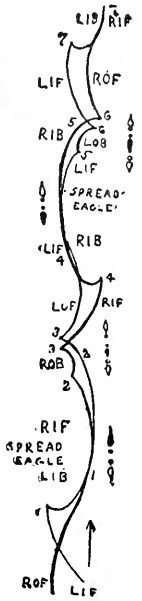
With the advent of Winter comes the Ice and it only remains to possess a pair of **GOOD SKATES** for the full enjoyment of that incomparable season.



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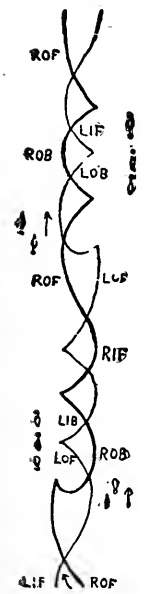

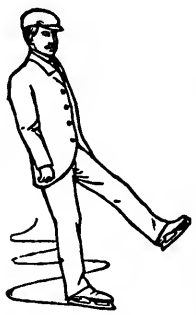

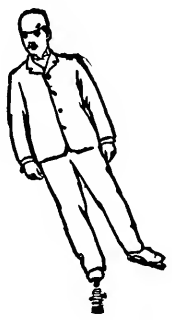

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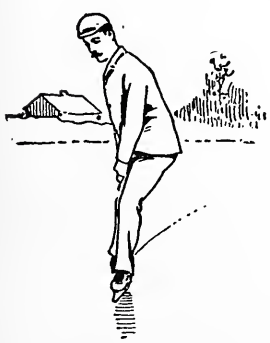

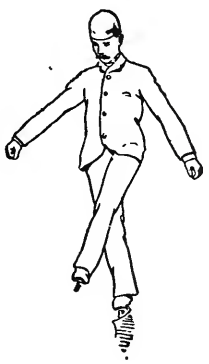

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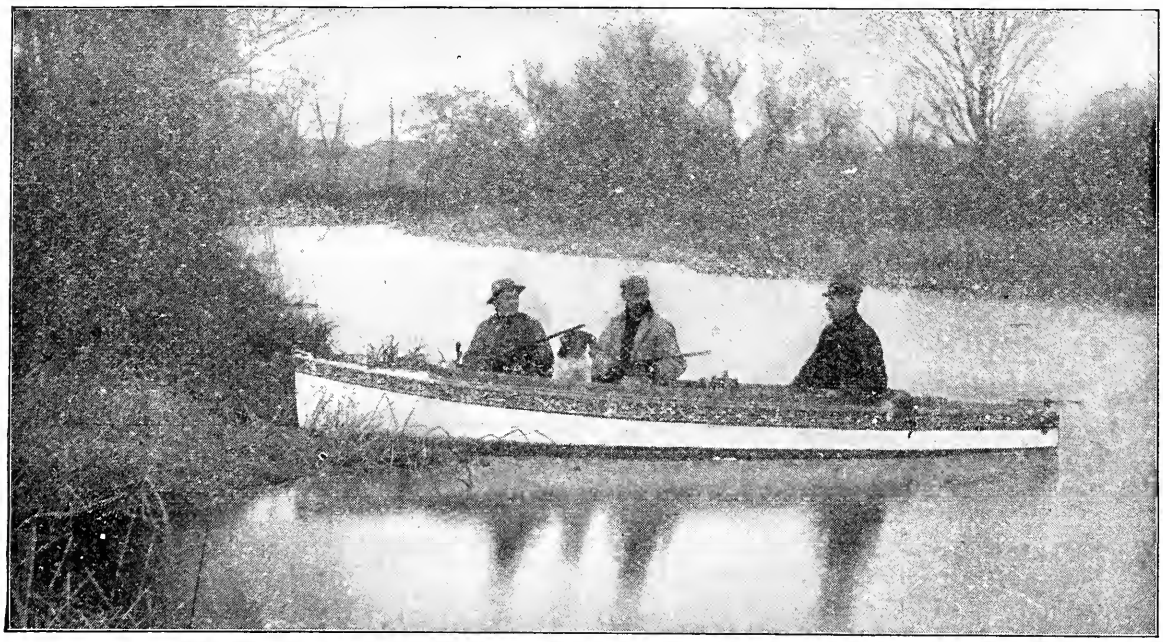

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No 4
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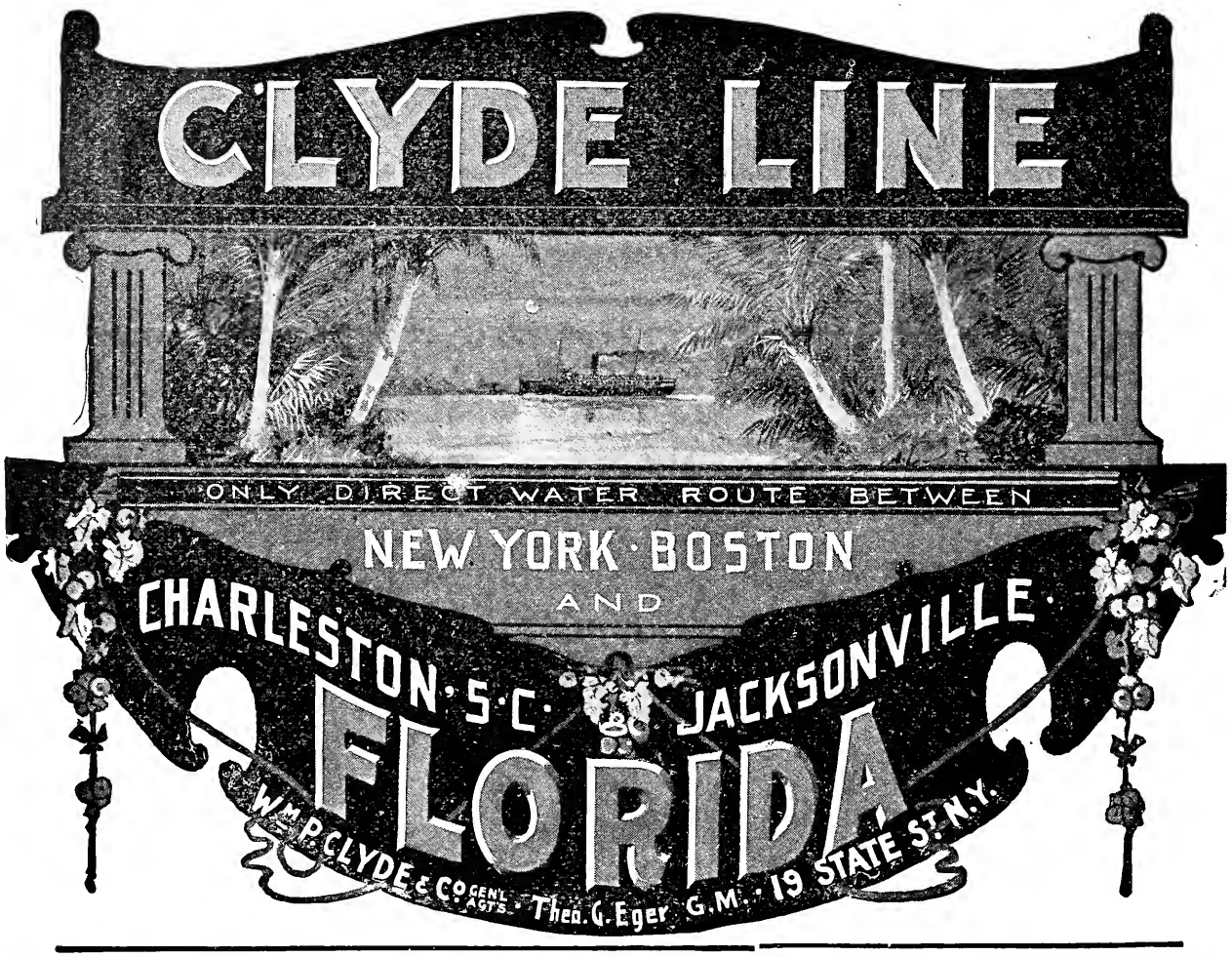
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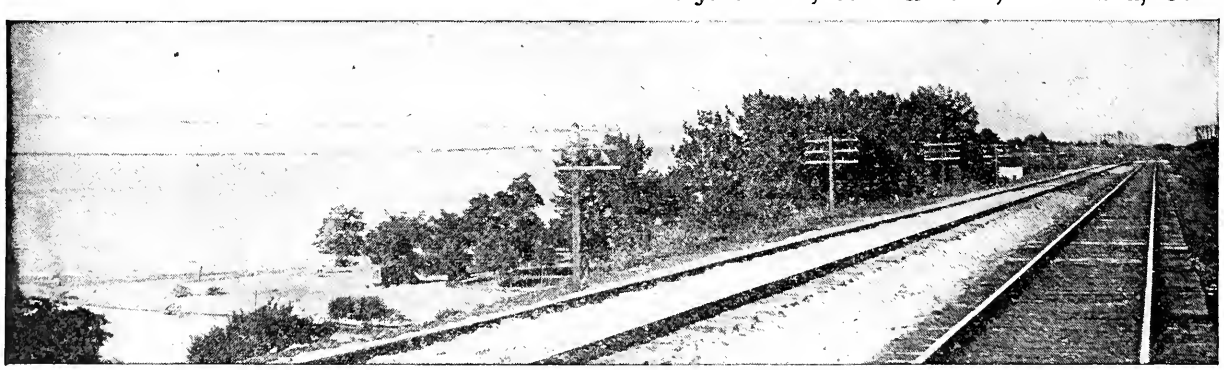

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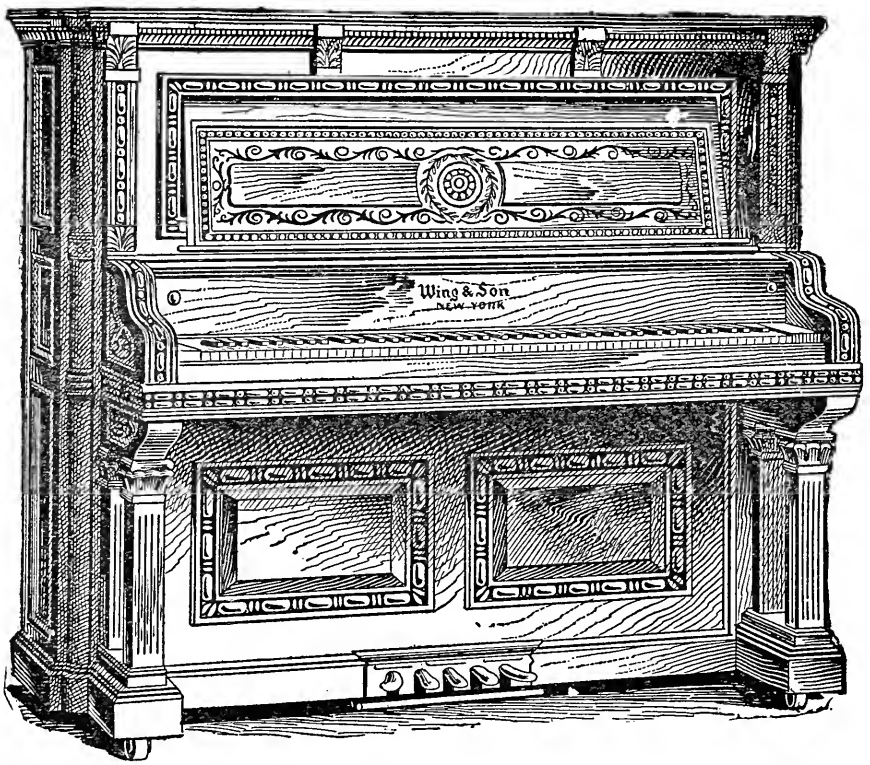

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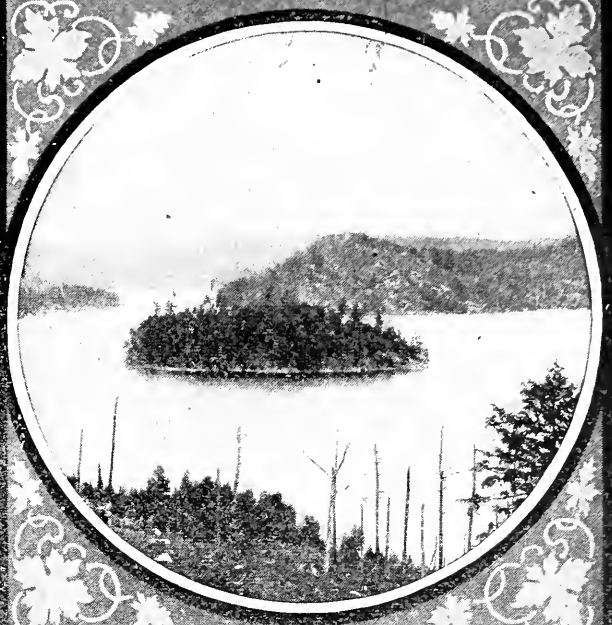

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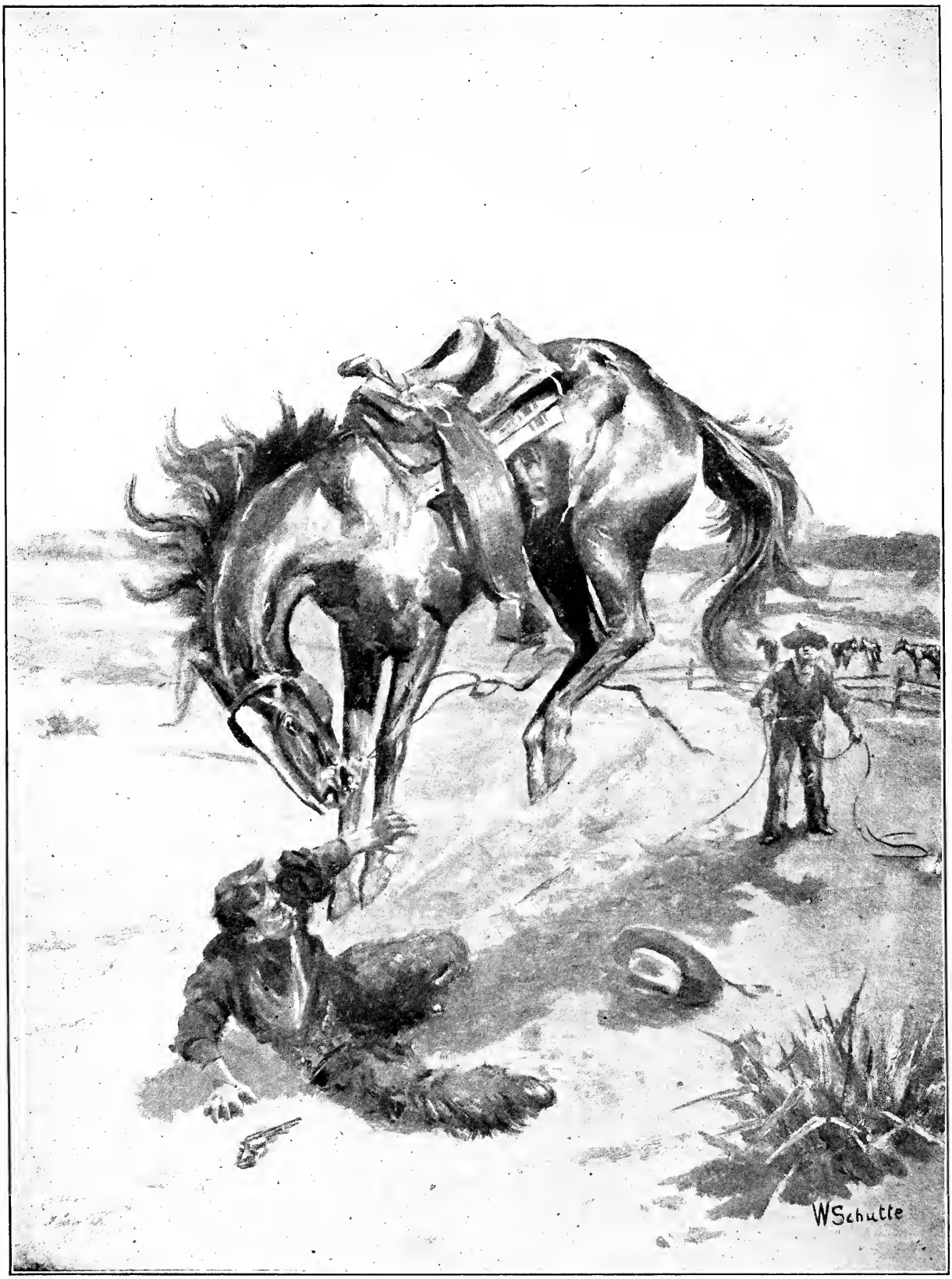


I WAS ON MY BACK AND THAT HORSE WAS COMING DOWN FROM HEAVEN WITH ALL 4 FEET POINTING AT MY BREAD BASKET.

RECREATION

Volume XVII. NOVEMBER, 1902. Number 5.

G. O. SHIELDS (COQUINA,) Editor and Manager

BRONCHO BUSTING.

GEO. B. M'CLELLAN.

"George, we ought to go out and get that bunch of horses on North Buffalo," said one of the boys on the ranch to me one day in early spring. The bunch was led by an old work mare we had named Mother Rice, because we got her from a man of that name. The mare had not been corraled for 2 years, and had collected a bunch of horses nearly as wild as herself.

"Get Mother Rice and bunch, eh? That is easier said than done. You have never had a round with Mother Rice. With me it's different. I've spent several nights in the badlands, without grub, and with no bed save my sweat-wet saddle blanket, just from thinking I could follow Mother Rice and her bunch."

"You did not have a good man to help you," said Harve. "Let's give them a whirl anyhow. There are some good horses in that bunch, and with you and old Wagon and Mesquite and me I believe we can make them think some one has been after them."

"All right; if you are aching for a trip I will go, but it's like going 25 miles to a dance; more fun going and dancing than it is coming home."

However, we finally agreed that we would start the next day but one, so when the time arrived we had our horses all ready and headed for the badlands, with beds and grub on a pack horse. The first day we covered 20 or 25 miles. After getting a bite to eat we again saddled our horses and went out to locate our bunch. About a mile above where we were camped we found fresh trails of a bunch of horses. We followed the bunch North 2 or 3 miles, and with the field glasses I located them on a flat a mile farther on. The next thing was to find out if it was Mother Rice's outfit, so we started to stalk them.

We got on the leeward side of the bunch and made for a knoll that seemed close to the horses. By riding some distance around and leaving our horses in the bottom of the gulch we reached the knoll and peered over.

"Is that her?" asked Harve.

No need for me to take a second look at the splendid brown mare, with the stripe in the face, standing so quietly not more than 60 or 75 yards away.

"That is certainly Mother Rice Now be still. Don't show up. If you do they are off."

There were 13 horses in the bunch, 2 of them showing saddle marks.

"There are at least 2 broken horses in that bunch," said Harve. "We must have them."

We slipped quietly down from the hill, back to our horses, and rode to camp. Early the next morning we started out to get the bunch. We found them grazing peacefully within a quarter of a mile of where we left them.

"Now," I said, "we must get behind that ridge, so as to be on the other side of them when we jump

them. I will cross the gulch and go over that ridge, keeping out of sight till you get around on the other side of them and give them a start. If they start down the gulch don't crowd them, but let them take their time. They will cross to my side 3 or 4 miles farther down, and I will ride alongside them into Nowood. There you must be on hand, for they will cross and take back up the divide on your side."

"All right," said Harve. "I shall fire them down that creek if that is all you want."

Throwing them down the gulch proved more of a job than Harve anticipated. I went leisurely across the creek 2 miles below the horses and waited for the fun to commence. In half an hour I saw Harve's gray horse on the ridge directly back of the wild bunch. He was barely in sight when the bunch ran up together, stopped a moment, and then started off up the creek. Harve, on Mesquite, had a hard run to head and turn them, but he succeeded, and then down they came past me. I galloped parallel with them, but out of sight behind a ridge, to the opening of the big trails from the creek crossing. There I was when Mother Rice led her band out before me.

When the old mare found me directly in her path she stopped, and a long, loud snort warned the rest of the bunch that there was trouble ahead. I was at a wide place in the ridge, and the old mare seemed inclined to pass me. I pulled out my 6-shooter, and made up my mind that if she passed me I would interfere with her internal mechanism anyhow; but she seemed to think better of it. She turned back down the ridge and struck her long lope, with the rest of the bunch at her heels in single file. I knew I had one bad place to watch, where the trails from the next water hole below crossed the ridge. The horses would probably start Northward on them while I wanted them to go on due East. I rode hard when down in the low places out of sight of the bunch and slowly when up in sight of them, so I was close to them at the next trails. When I bobbed up ahead of them they were much surprised. Five or 6 miles farther would take us down to Nowood. There they would cross Buffalo creek and try to go back on the other side, so I determined to crowd them, hoping to prevent that. As I turned them the last time down into Buffalo creek I looked across and saw Harve on the ridge on the other side. I said to myself:

"Mother Rice, your days in the badlands are over."

I pulled up and watched the performance, for when Harve turned them there we would have them in a canyon leading down to Nowood. They would be off their range, and we would have no more serious trouble till we got to the corral. Harve saw them coming and got in the place where he would have the greatest advantage. He had not long to wait. They came on to the ridge and found Harve and Mesquite right in front of them. They stopped and turned around once or twice; then the old brown mare made a break for business.

Harve tried to head her off, but she dodged in behind him and was off up the ridge like a steam engine, with Harve in hot pursuit, trying to get close enough to rope her. No go. She left him. We succeeded in getting the others into the corral, and what a satisfaction it was! We had captured one mare I had not seen for 3 years. I had supposed she was dead. It was a good day's work to get her.

I proposed to give Wagon a rest by riding for the remainder of the journey one of the captives which bore saddle marks.

"All right," said Harve. "You can ride one of them old brutes if

you want to, but Mesquite is good enough for me until I get to the ranch."

That was 8 miles, and it was then 3.30 p. m. We had been running that bunch about 8 hours. The corral was close to a ranch, and it happened that all the ladies in the country were visiting there that day. Ladies were not numerous on the range at that time, but they were precious, and their good opinion was much coveted. I said.

"Old Wagon is tired and I am going to change."

Someone rushed to the house and told the women, and they all came to see me ride the wild horse. I got my rope, went into the corral and was about to catch the smallest of the L. U. horses, when one of the boys said:

"Don't get that one with the big white spots on his back. I tried to ride him once, and he was too fierce for me; threw me off faster than I could get on him."

"Well," said I, "if he is that kind of a horse I will just go him a round. I should like to have one of those old brutes buck with me."

All the women stood looking on. What scrapes they do get a fellow into!

"It will give me a good chance to take a rib or 2 out of him, which I shall surely do if my spurs are strong enough, and I guess they are"; so I turned and threw my rope on the white-spotted horse. I always did think women had no business around a corral, and since then I know it. He faunched a little when the rope tightened on his neck, but soon stopped, and I saddled him without any trouble. I mounted him carefully, turned him around and started out of the corral. As I was going out Harve hit him with his rope. I looked around and something happened. I was on my back looking up, and that horse was coming from heaven with all 4 feet pointing at my bread basket. How I scrambled! I forgot all about appearances. You would not wonder at the success of Cody's Wild West show if you could have seen what a pleased audience was mine. Everyone was convulsed with laughter save me. When I got up that horse was hopping off toward the creek, with the stirrups meeting over his back at every jump. When he reached the creek he knocked it dry at that place by turning a complete somersault into it. I finally managed to get up a little sickly laugh, and went after Mr. Horse. When he stopped I had blood in my eye. I got him back, got him going, put both spurs into him, and he did some pretty work for awhile, but that time I was looking for him, and I sat him creditably. When I looked around to see what effect that had on the women there was not a woman in sight. They had left before the last part of the performance. I did not go to hunt any of them. I was satisfied to head for home.

Some of the sports who are so fond of fox hunting should come out here and take one run across the badlands after horses. If the adventurous ones should come in alive they would consider fox hunting tame sport afterward. It is astonishing how few men are hurt when one considers how they ride and the falls they sometimes get. I sat one day on a hill watching a fellow run a bunch of horses till he disappeared. The horses came on down till another fellow caught them and put them into a big bunch we were holding. When we were ready to start on, some of the boys said Hank must have had a fall or he would have been in by that time.

"Well," I said, "everyone looks out for himself when running horses, so come on."

Dave said he had been watching and could not see anything of Hank;

he would go over and look for him. He found Hank stretched out insensible and his horse was so lame he could not go. They were 10 miles from water. When Hank came to himself he was in great pain so it was slow work for Dave to move him. They were all that day and till after midnight getting to camp, 12 miles. In a few days Hank was all right again. Those fellows are tough and mighty hard to kill.

AMATEUR PHOTO BY A. T. WHITMORE.

A FLOCK OF MALLARDS.

"Let me get over this difficulty somehow," says youth, "that I may play the game of life well;"—and our hair is turning gray before we learn that the difficulty *is* the game.—The Way of Escape.

DID YOU EVER HEAR A RATTLER CRAWL?

GEO. WALKER.

During the spring of '98 I herded sheep on the tablelands of central Montana. The season was unusually backward, being cold and windy, and for 3 weeks it rained almost continuously. Constant exposure all day, and often part of the night, had nearly used me up.

One day in the latter part of May and near the end of the rainy season, the clouds broke away for a while and the sun poured down its rays with intolerable heat. About noon my sheep camped and I improved the opportunity to eat my lunch and smoke. Then, as the herd remained quiet, I lay down, using my coat as a pillow and pulling my hat over my face.

In the same locality and on the same day a rattlesnake ventured from its den and was, perhaps, made uncomfortable by the sudden burst of sunshine. It cast about for shelter from the fierce rays and seing a dark object on the ground, approached it.

I should, doubtless, have been fast asleep had it been less warm. As it was, I became aware of a faint pattering or crackling noise which to my dulled senses suggested that it was raining again. An instant later the sound became more distinct and I noticed something peculiar about it. Surely rain never pattered in just that way. I could plainly distinguish a faint, but constant, noise, punctuated with a sharp and rapid crackling. There was no mistaking the message that time; snake! it read. Yet, while the sound grew louder and my ears were still attentive, I seemed to reason thus with myself:

"Pull yourself together, my boy, and get up. That is a rattler and it's within 12 inches of your head; maybe it's only 6 inches. Anyway it's time to move."

Then there waved before the eyes of my imagination a newspaper on which appeared fat headlines, reading,

"Sheepherder Found Dead.
Bitten by a Rattlesnake."

Instantly I threw myself to a sitting posture, and thence to my feet. In transit I looked over my shoulder and saw the snake strike my coat. Then it retreated a few feet and coiled in the attitude of defense. Thereupon I got a few stones; also revenge for my fright.

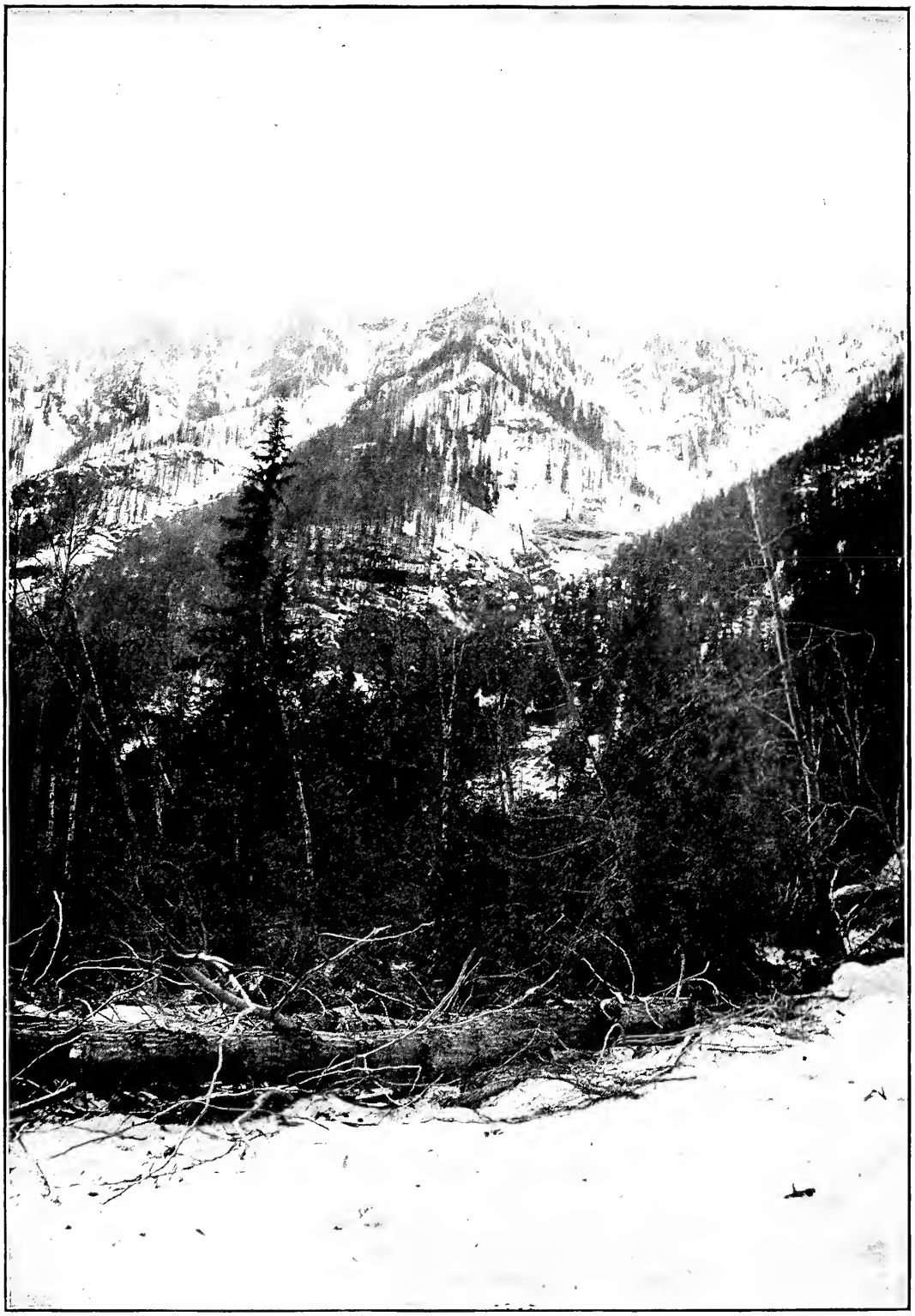
The reader may conclude that I am of an extremely reflective disposition; that I bank too confidently on the good old saw, "Look before you leap." Be it known that the time which elapsed after my hearing the first sound until I sprang up did not exceed 2 seconds, to the best of my belief. One's mental machinery works rapidly under such stimulus.

There may be others, but until they are heard from, I claim the distinction of being the only person who ever heard a rattlesnake crawl.

[" Nessmuk," that delightful writer who for so many years entertained us all with his pen, tells of hearing the crawling of a rattler in his tent in the night. It must have been a most uncomfortable experience, but he tells it so naively as to provoke a smile in spite of the horror of it. - EDITOR.]

Mr. Newlywed—Isn't there any ice water, dear?

Mrs. Newlywed—I know it's silly of me, George, but you know the danger there is in germs, so I got the cook to boil the ice. —Exchange.



1. ON THE WEST SIDE OF WILSON CREEK CANYON.

This view shows the tracks of 13 separate and distinct snow slides on or near the top of the range. Several of the small gulches, shown near the summit, converge into one great gulch or canyon. Thus half a dozen or more slides come down one of these larger runways in the course of the spring.

SNOW SLIDES IN THE CANADIAN ROCKIES.

G. O. SHIELDS.

As a loyal American, I dislike to think that Canada has anything greater or better than the United States have; but candor compels me to admit that the Canadian Rockies are far higher, greater, and grander in every way than anything we have on this side of the boundary line.

In British Columbia the Rockies and the Selkirks pierce the clouds in every direction. There is probably no range of mountains on the earth that excels in picturesque grandeur and in the great number of high peaks to the square inch those to be found in that region.

My friend, W. E. Coffin, has described these as "Geography mountains." He says they are the only mountains he has ever seen that fill the specifications laid down in the old school books. In these British Columbia ranges the peaks tower almost out of sight and are sharp at the top. If these mountains ever were round shouldered, as the Rockies are in Montana, Wyoming, Idaho and in other Western States, those slopes have slipped off or worn away until now all that remains above timber line, or, say, above an altitude of 3,000 to 5,000 feet, is bare walls of granite, clad in perpetual snow, wherever there are benches or fissures to hold it. Over large areas of these great crags, however, the rock walls are so precipitous that snow can not adhere to them; so, for a greater portion of the year, the walls simply glimmer in the sun, or shade into the hovering clouds in such grandeur as to fairly chill the blood of the observer.

Some of these great columns of rock have flat summits. Others have depressions or basins on their tops, of great expanse. These are, in the main, filled with ice that has lain there thousands or perhaps millions of years. These glaciers usually dip to one or another side of the mountain, and the great beds of ice gradually drift away, though the motion is so slow as not to be perceptible. It can only be determined by careful measurements.

Other peaks, and other great mountain walls, in that country are so shaped that the heavy snows of winter lodge on them and rest there until softened by the sun or by the warm breezes of approaching spring. Then come the snow slides.

The wise men of old tell us of the 7 wonders of the world. If they had lived in this age, and if they had traveled in the great Northwest, they would have recorded another. This eighth would have been designated, collectively, as the snow slides in the Canadian Rockies.

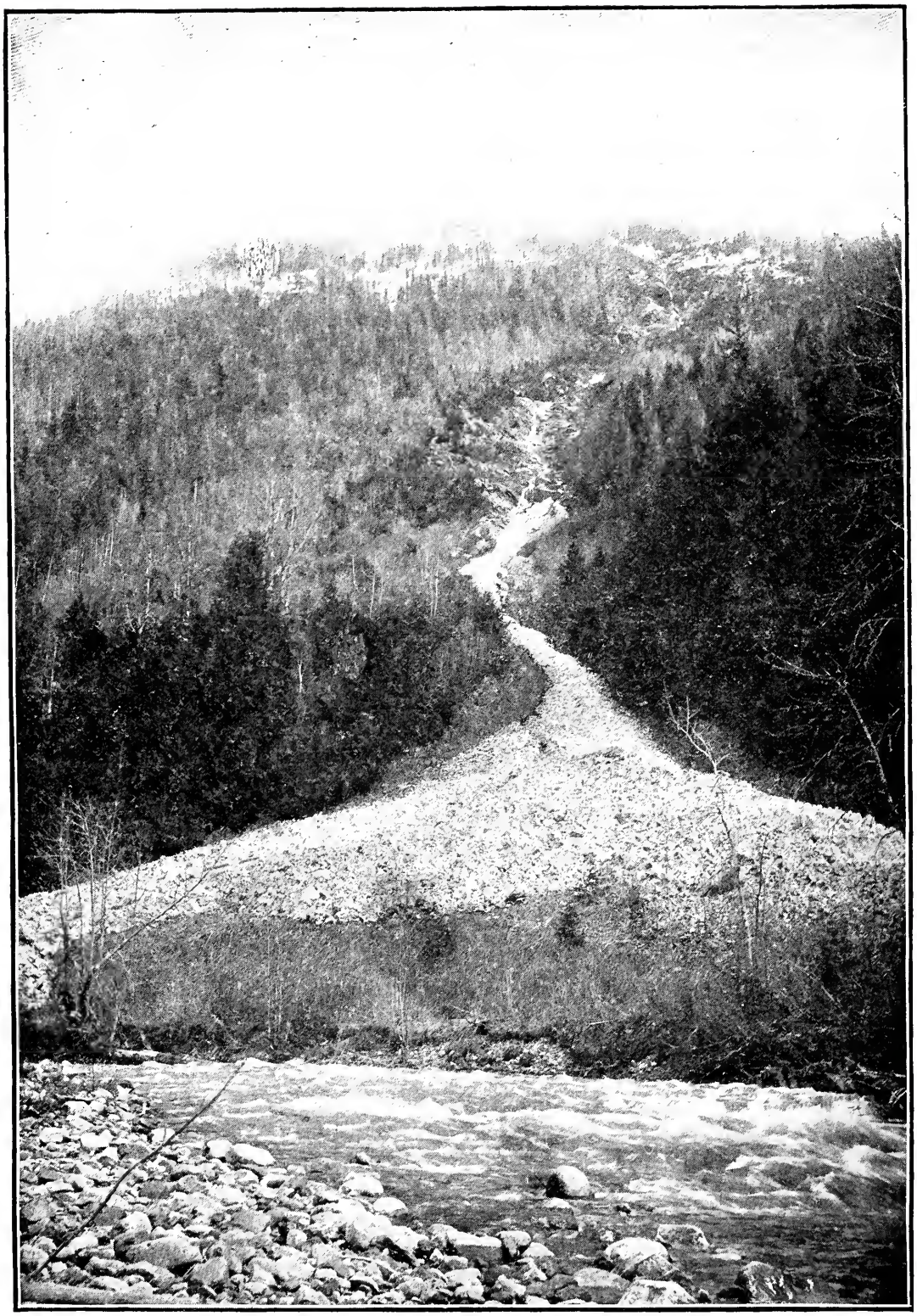
I spent a month in the Selkirks last spring and had exceptional opportunities to observe and study these marvelous phenomena. Our party went up one of the several great canyons that terminate in Slocan lake, B. C. Through this canyon flows a large mountain stream, called in that country a creek, but which in the East would be called a river. Even at a low stage of water its torrent is irresistible and appalling. It is safe to assume that this stream runs 25 miles an hour. We camped on its banks at an altitude of 3,200 feet, and estimated its fall at 100 feet to the mile.

So great is the force of the water that frequently large boulders which are loosened by it go pounding down the stream, giving forth the most doleful and puzzling sounds imaginable as they are forced along over the granite bed.

The walls of this canyon slope up to the North and to the South at an angle of perhaps 50 degrees, or possibly 60. We climbed these mountains at various places and to various heights above camp, and my friends insisted that though a man might step 3 feet at each stride he would not move more than 6 inches in a straight line ahead. I carried an aneroid and in several cases where I climbed a mile up the mountain would find myself 2,000 feet higher than the camp.

The creek bottom, wherever there is any, is covered with heavy timber, though in most cases the mountains come down to the very banks of the stream on both sides. The canyon walls are also heavily timbered wherever there is soil enough for trees to get a foothold and wherever the sliding snows have allowed the trees to stand and grow; but every here and there the traveler finds broad avenues cut through the trees, from timber line clear to the bottom of the canyon. These lanes have been cut by the snow slides, and the trees which once grew on the mountain side, varying in diameter from 6 inches to 3 feet and in length from 50 to 300 feet, have been shaved off or uprooted by the great mountains of snow and ice that have accumulated above them, and have been piled in the bottom of the canyon in the most formidable and forbidding masses ever dreamed of.

The snowfalls are much heavier some years than others, and of course the more



2. THE GREAT SLIDE NEAR OUR CAMP.

Our tent was pitched in the heavy timber about 100 yards to the left of the left branch of the moraine. A section of Wilson creek in the foreground.

snow the greater the havoc wrought when it leaves its rocky home on the summit and starts for the bottom of the canyon. In some cases the snowfall is light for several years, and the snow slides are small. Then comes a winter when the snow piles up 10 or 20 feet deep on the hills. Then look out for breakers.

In the springs following the lighter falls of snow the slides come down narrow gulches that have been worn in the rock by this process; but when the heavy snow comes these gulches overflow their banks, so to speak, and the timber that has been growing over the old slide for perhaps 10 or 12 or 15 years is swept away, and the débris added to the accumulation below.

Even the small slides bring with them some big trees that are caught here and there, and all of them bring large quantities of rock. The native granite which forms the crest of all these great mountains is more or less broken from the effects of internal heat which raged there ages ago. The water settles in these seams, freezes when the cold weather comes, and thaws in spring. This process keeps breaking off fragments of the rock, and these tumble down the mountain sides. When a bed of 10 or 20 or 40 acres of snow starts from the top of the mountain it picks up many of these blocks, and the inclined walls of the gulches gradually force the whole mass into the narrow confines of the cut. Then, as the weight and size of the mass and the degree of pitch from point to point increase, this great body moves faster and faster down the mountain side.

At intervals, along the tracks are perpendicular walls of solid granite, ranging in height anywhere from 20 to 200 or 300 feet. Imagine, if you can, a mass of snow, ice, rocks and trees coming down a great inclined chute, say 50 feet wide at the top and 50 feet deep. This chute is, as I have said, built on an incline of 50 or 60 degrees, with walls so steep you could not climb one of them at the rate of more than ½ mile an hour. The slide increases in velocity as the distance increases from the starting point. We will assume that when it reaches the first perpendicular wall it is going at a rate of 10 miles an hour, or at the ordinary speed of a slow freight train. When it takes its first perpendicular leap it goes down with a frightful velocity and from there to the foot of the mountain it moves like a hurricane. We will assume that at the foot of this first fall the same rocky chasm receives the moving mass and confines it within narrow limits. Nearly all these gulches curve here and there, and when the slide strikes a shoulder of one of these abrupt turns its velocity is checked; but as the load accumulates behind, it is forced ahead, and, going on down, it finally reaches the second perpendicular wall and takes a second plunge toward Hades. Then it moves on with increased force and terror. Finally the whole great mass of ruin reaches the bottom of the canyon, or what may be called its moraine. There the gulch ends, and the snow, being still pressed and pounded from behind by thousands of tons of other snow and rocks and ice, spreads out over a tract of perhaps 5 or 10 or 20 acres of ground.

The head of the procession has now reached the level of the creek and stopped. The great weight and the great body of snow and rocks behind keep forcing the other sections down and piling them up until, when the last of the avalanche arrives, this great moraine is covered with snow and rocks and timber from end to end, from side to side, 50 to 100 feet deep; a perfect mountain which has come down from the top of the mountain.

I wish I could describe the noise these snow slides make. Did you ever go into an old fashioned grist mill and hear the stones revolving on each other? If so, multiply the volume of sound you heard there by 10,000. Did you ever stand beneath a high bridge and let a freight train pass over your head? If so, multiply the effect of that by 10,000 and you may possibly realize the terrible uproar that comes from one of these snow slides. It is the most appalling, the most heart-rending, and the most nerve destroying of anything I have ever listened to. If there was nothing but snow moving it would make little noise; but there are perhaps thousands of tons of granite mixed with the snow, in blocks varying from the size of your head up to that of a box car. Then, in among these, are a greater or less number of logs and brush, being broken into all sorts of shapes, and some of them being ground into splinters.

We camped within 100 yards of one of these great terminal moraines. We went in before the regular spring slide had come down. In reaching our camp we crossed this vast deposit of broken granite and old logs. The mass is perhaps 200 yards wide and 50 to 100 feet deep. The trail leads across this field and winds hither and thither in order that safe footing may be found for man and beast. How long it has taken to form this deposit no one knows, but probably thousands of years.

We pitched our tent in a forest of great cedars, about 100 yards from the North edge of the moraine, partly in order that we might have a good view of the great slide when it should come. We watched for it day and night. Finally, after we had been in camp about 2 weeks, and when

3. THE BIG SLIDE 2 MILES ABOVE OUR CAMP, ON THE WEST SIDE OF THE CANYON.
Note the 2 stumps to the extreme left of the picture.

seated at dinner one night, we heard an ominous rumble from the top of the mountain.

"There she comes!" said one of the boys.

We forgot our appetites in an instant and rushed out of the tent. By that time the roar, the grinding, the crashing were tremendous. The earth trembled under our feet and the branches of the trees about us vibrated from the air currents set in motion by the great slide. We could not see from our camp ground the high precipice over which we knew the slide must plunge, and had not time to reach a point whence it could be seen; but as we stood there, looking in the direction of the fall, we saw great clouds of mist and snow rising through the tree tops.

"There she goes over the precipice," said Wright, and as the rocks landed again on the cragged walls of the gulch at the foot of the cliff the earth vibrated still more violently.

A moment later the vast wall of snow and ice swept in sight, within 200 yards of us. It was like a tidal wave on the ocean. It came in an almost perpendicular wall, 20 or 30 feet high, with the loose snow curling and foaming over the front of it. This huge white mass moved slowly, majestically, terrifically forward until its front fell on the immediate bank of the creek. Then the rest slowed up and began to spread out. It took several minutes for the last of the moving mountain to get out of the gulch and spread out over the tableland. Occasionally one section, or one line of the snow, having a greater pressure behind it than another portion, would cut a channel straight through the body that was moving more slowly, and would be forced to the front, leaving perpendicular walls on both sides of the cut, polished smooth and clean, to a height of 10 or 20 feet.

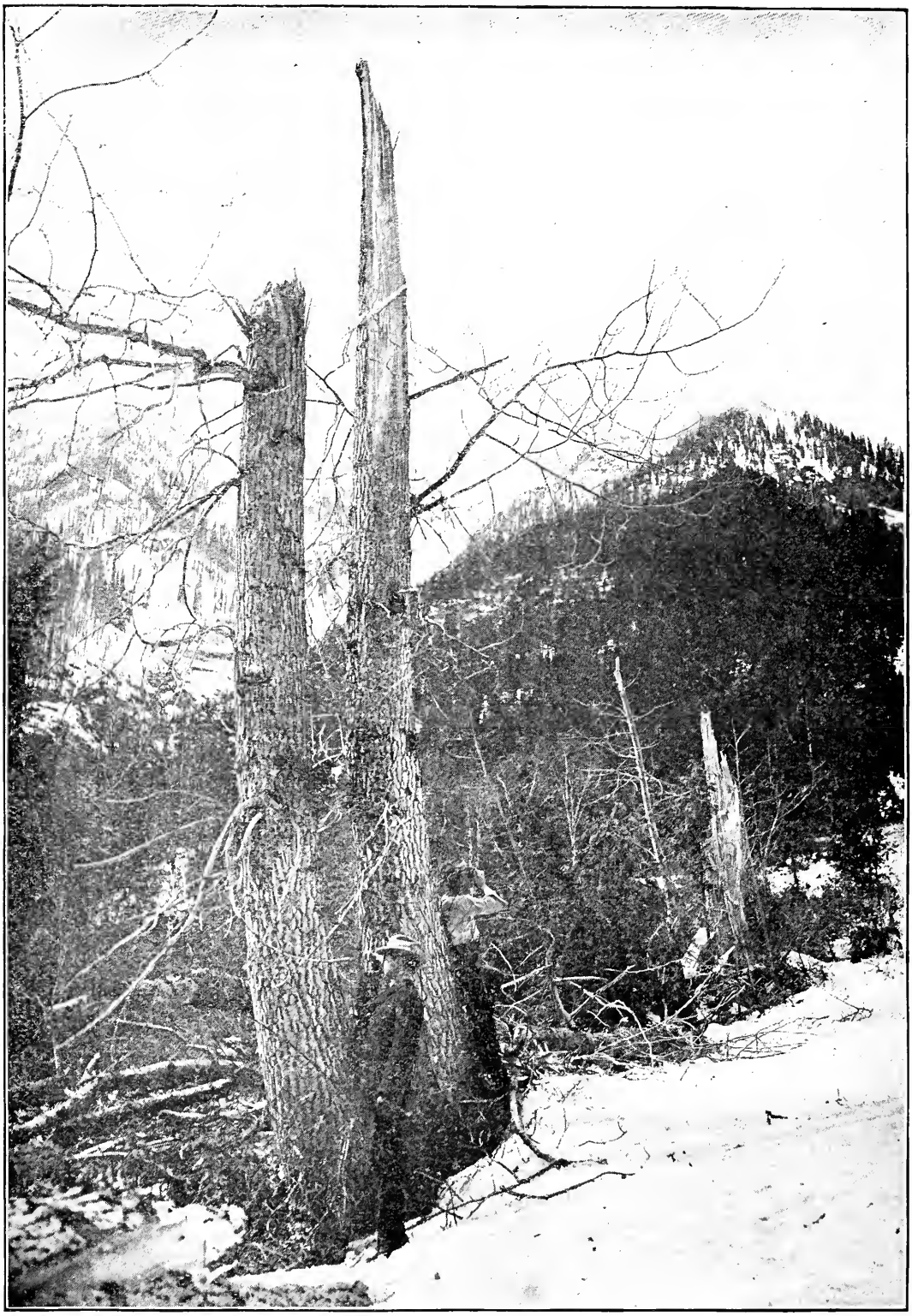
When the snow finally ceased to move it was spread from one side to the other of the terminal moraine, from the big timber on one side to that on the other side. The sight was enough to paralyze a man. We stood speechless in awe of it. We were all thinking of the same thing. That was, what a puny, insignificant creature man is when compared with the great forces of nature. If the New York post office building had stood on that moraine when the slide came down it would have been swept into the creek just as you would sweep away with your hand a house built of cards. If the Brooklyn bridge had been stretched across the right of way of that slide it would have gone down into the creek as easily as the housewife sweeps down a cobweb with her broom.

If there is anything on this earth that will take the conceit out of a man in 20 seconds it is to stand on the right of way of one of these snow slides and see the slide coming.

A few days after this incident I climbed half way up the South wall of the canyon to watch a certain feeding ground for bear. I had been there perhaps an hour when I heard a crash and a roar from the top of the opposite mountain. I looked across and saw another immense slide just starting from the basin of snow which lay ensconced against the very top crag of the mountain. This basin covers perhaps 20 acres and a gulch leads out from the lower side by it. The snow which had been softened by the warm sun was juust leaving the basin and starting on its headlong journey to the bottom of the canyon. It gathered force as it went. It gathered rocks, it gathered trees. The rocks were forced and ground against the walls of the gulch. Trees were tossed hither and thither by the changing currents of snow as a man would toss straws with a pitchfork. This gulch, like the other, winds about more or less in its course, and one of the most interesting phases of the exhibition was to see the slide checked when it came to an abrupt turn in the gulch; but in each case the pressure behind would be rapidly increased until the front of the column of snow would break loose and move on.

I watched this great convulsion of nature perhaps 3 or 4 minutes. In that time the slide traveled, I should say, nearly a mile, when it emerged from its narrow confines and spread out over the moraine. It split in the middle and 2 great columns of snow went boiling and surging down the opposite sides of the rock pile as if running a race to the creek below. These 2 wings finally reached their destination about the same time. Each was 100 to 150 feet in width at its terminus and about 500 to 600 feet long. The 2 wings were at least 300 feet apart at their lower ends and the snow was anywhere from 20 to 30 feet deep all through these 2 great columns.

The snow in this slide was cleaner than in any of the others we saw during the month we were there. It came from the mountain top to its field at the edge of the forest as pure and white as the day it left the heavens. I walked over these great masses several times during the next few days, and when the sun shone the whiteness and the brilliancy were simply painful. One could not endure it more than a few minutes without smoked glasses. There were many weird and fantastic images formed in these blocks of snow. There were single snowballs 10 to 20 feet in diameter. One, I remember, about 6 feet in diameter and about 10 feet high, rolled clear away from the main mass of snow and stood on its



4. THE SAME 2 STUMPS SHOWN IN THE LEFT OF CUT NO. 3.

We estimated the snow to be 50 feet deep at the point where the camera stood when this picture was made. It will readily be seen by comparing the height of the stumps with that of the men that the taller stump is at least 20 feet high. The snow must have extended 20 feet above the point where these trees broke in order to wreck them. It is therefore safe to conclude that a body of snow 90 to 100 feet deep came down this gulch when these trees were broken off.

5. WHERE THE SLIDE CUT THROUGH THE FOREST.

The lane cut through the standing timber by this slide is about 150 feet wide, and the side lines are as straight as a corps of woodchoppers could have cut them, if the work had been done under the direction of an engineer. The length of this lane is nearly ¾ of a mile. The trees average 12 to 24 inches in diameter, and the trunks are piled along the bank of the creek below. A few will be seen in the foreground partially covered with earth and rocks.

6. A SECTION OF THE LOG JAM CREATED BY THE GREAT SLIDE SHOWN IN CUT NO. 5.

end among the granite boulders. One could easily fancy among these various formations images of people, of wild animals, of locomotives, of bogy men and other weird and mysterious forms.

On still another day, when waiting on my favorite slide for a grizzly to come to lunch, I heard a roar from the mountain top back of me. I rushed out from my bed of boughs to locate the slide, and, to my horror, saw it coming down the gulch on the bank of which I stood. I caught up my rifle and started to run, but then I realized that the only safer place than that on which I stood was immediately to the South of me and up an almost perpendicular bank. This was covered with alders, mountain maples, wild cherry and other underbrush which had been mashed down time and again by the moving snows, and which was tangled and interlaced to such a degree that a man could not travel more than half a mile an hour through it if he did his best. By the time I realized this the gulch behind me was full of the moving mass of snow, ice and rocks, and the roar which it gave forth was of the same appalling nature I have already mentioned. The moving column was piled 20 feet high within 30 feet of where I stood. I said to myself, there is no use trying to escape. The slide will probably not spread out any more, and I may as well make its acquaintance at short range while I can.

I stood my ground, and within 3 minutes of the time the first alarm came the column had stopped moving and I was safe. I have been face to face with death several times, but I was never worse shaken with fright and terror than in those few seconds. Yet I was happy, for I had been next to a great snow slide while it was in motion. It is one of the events of my life that I shall never forget.

Of course these slides are dangerous, not only to people, but to wild animals. Still, if a man will exercise proper care, he need never be caught in one. The trouble is that miners, hunters and packers who associate with slides all through the spring and summer, grow careless and occasionally a man or a party of men is caught in a slide and buried alive.

While we were camped in this canyon a snow slide came down in another part of the Selkirk range that caught a pack outfit of 2 men and 16 horses. One of the men escaped, but the other man and all the horses were buried under 50 feet of snow and débris.

A few days later another slide, near Nelson, caught 4 men and 20 mules. One of the men and all the mules were killed,

The other 3 men, after being tossed hither and thither, finally escaped with their lives, but all were badly cut, torn and bruised.

Some people are killed every spring, but this is usually the result of carelessness on their part. Familiarity with danger breeds carelessness on the part of all men. Pack trails cross the paths of the slides. Men go over these trails every day in spring and summer. A man may pass over them a hundred times and not be caught; so he grows careless. He keeps on going, even after he knows the slide is due to come down. Finally it comes, just when some pack outfit or some prospector is at that point in the trail, and his friends do not see him again for probably 2 or 3 months. Every Western man knows it is useless to search for a dead man in one of these great moraines. You must simply wait for the snow to melt and uncover the body. The friends of the unfortunate watch the gradually melting mass every day for weeks. Finally they find a hand or a foot or a head exposed in an edge of the snow mountain and the body is rescued; but there is no danger of being caught in a slide if people are careful.

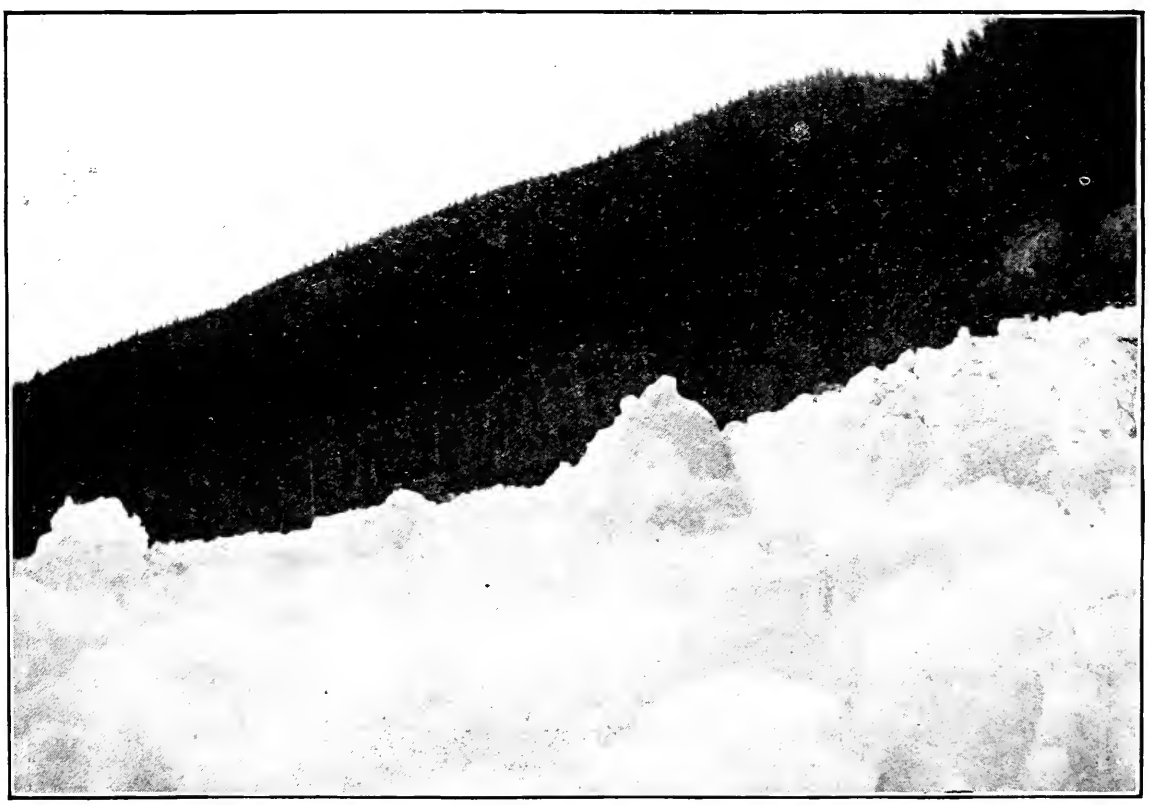
I made a large number of photographs of the avalanches and of the effect of them, some of which are reproduced here, but I have not space for more than a small percentage of them. I have had a series of lantern slides made from the best of these pictures, showing the awful work of these great phenomena, and shall take pleasure in showing them to such of my friends as care to see them.

It is impossible to get into a photograph 10 per cent of the grandeur or the feeling one experiences in playing snow slide in the Selkirks. In the first place, you cannot possibly portray in a photograph the frightful pitch of the mountains. You must tip your camera back to enable the lens to look up the mountain. Thus you get an effect almost like that produced by setting the camera level on the ground and having it look off over a flat prairie or a long stretch of level road. In nearly all the views reproduced with this article the observer is looking up mountains that are so steep a goat would have great difficulty in climbing them. In some places you are looking up perpendicular walls, where the snow slides drop straight down 100 to 500 feet; but, as I have said, the camera had to be tipped back to get the view, and that takes off the chill. Furthermore, these granite walls are usually ¼ of a mile to a mile away from the point of view, so they dwindle into miniature proportions when viewed through the ground glass. In order to get anything like a correct impres-

7. ANOTHER VIEW OF THE DEBRIS BROUGHT DOWN BY THE SLIDE SHOWN IN CUT NO. 5.

8. SECTIONAL VIEW OF SNOW, ICE AND ROCKS WHICH CAME DOWN NEAR OUR CAMP.

The outer portion of this moving mass of snow was obstructed by the adjacent timber. The inner body was forced on down, the dividing line being cut as clean as if with a great knife. The perpendicular wall shown in the left of the picture was at least 20 feet high and almost as smooth as a sheet of glass. This snow was badly discolored from the earth which was ground up with it



9. A SECTION OF THE SLIDE WHICH CAME DOWN AT THE MARMOT DEN 1 MILE ABOVE OUR CAMP.

This moraine covered about 4 acres of ground to a depth of 20 to 50 feet. The snow was not contaminated in the least by contact with the earth on its way down, but was deposited in the bottom of the canyon as pure and white as when it left the clouds.

10. A CEDAR LOG DRIVEN THROUGH A STANDING TREE, BY A SNOW SLIDE.

The log was about 18 inches in diameter and the standing tree about 6 feet in diameter at the ground. This occurred several years ago, and the ground, which was probably swept clean of vegetation at the time, is now covered with underbrush.

sion of the declivity of these canyon walls you must give your imagination full sway when looking at the pictures.

It is worth a trip across the continent any day to see one of these slides come down, and I predict that in future many people will make a practice of going to the Canadian Rockies in April or May and camping where they can see some of these things. There are numerous points where such sights may be seen almost any day, from the first of April to the middle of May. At certain points you may command a view of 10 or 15 of these great slides, and in such case you would not have to wait long to see one of them start. Any man or woman who is fond of the great or the grand in nature will say as I said when I saw the first slide come down, "This is worth all the time and all the money it has cost me to cross the continent."

THANKSGIVING.

N. D. E.

'Way down East the punkin pies
Are waitin' for Thanksgivin';
The chestnuts and the butternuts,
Oh! that's the kind of livin'!

There's turkeys sizzlin' in the pans,
There's doughnuts in the larder;
There's blushin' apples and mince pies,
And cider gittin' harder.

We'll nothin' say of chicken pies
A-steamin' for Thanksgivin',
And ev'ry sort of garden sass;
Oh! that's the kind of livin'!

UNDER ARCTIC SKIES.

L. L. BALES.

In the spring of 1900 I made the trip from Seattle to Nome, carrying a special mail. After passing through 3 successive disasters at sea, I finally reached the mainland at Iliamna bay, 150 miles Northwest of Kadiak island, May 9th. I was then 40 days behind time. It was too late for dog sleighing and too early for boating along the route I had proposed taking. Therefore I struck across the Alaskan peninsula, coming out at Koggiung, Bristol bay, on Bering sea.

Iliamna lake is 90 miles long and 35 miles wide. Its water is clear and transparent. The Eastern shore is fairly well timbered. This lake contains fresh water seals. In size they are between the hair seal and the sea lion, and they have a peculiar whitish mark on the back. They can be taken only in winter, when they come out on the ice. I left an order with the Iliamna chief for 2 skins and skeletons to be sent to the coast. There is also in this lake a peculiar fish having a bill like a duck's. It looks much like the pickerel of the East.

There are at least 100 islands of all sizes in the Eastern half of the lake, but only 3 small ones in the Western part. Several varieties of gulls nest on the islands and eggs are plentiful in May and June. Near the lake I found a deposit of fine black sand. There is a lot of quartz near, but men who claim to know say it is micaceous quartz and worthless. At one place the beach is strewn with bits of petrified bark of the soft pine. I also found many kinds of petrified wood.

Willow grouse are numerous. There are a few snowshoe rabbits, many marmots, and a few ducks and geese. On the bars of the river, which is the outlet of Iliamna lake, many water fowl were seen.

In traveled in a kayak, a skin boat used by the natives. Skillfully handled, it will outlive a ship in a storm. I saw a few bears, but little other game.

The day I arrived at Koggiung the natives were having a beluga hunt. The beluga, or white whale, attains a length of 40 to 50 feet. They go in schools, and when feeding they come to the surface every 10 minutes to blow. Before hunting them the natives paint their kayaks, oars, wooden helmets and other gear white. Soon after a school is sighted every able bodied man owning a kayak is on the bay. When a whale rises the nearest hunter gives a signal and follows it, while the others scatter in different directions. Sometimes the whales become frightened and run up high and dry on the mud flats. Twenty-five were killed the day I was there. Their skins are used for kayaks and muk-luk soles; their oil is an article of trade.

From Bering sea I went inland 150 miles at 2 different places; going up a river, making a portage to the headwaters of another, and down to the sea again. In that way I cut off capes Constantine and Newenham.

While coming down those rivers many were the mutual surprises as I came silently on foxes and other animals at play or feeding. One family of 6 fox pups and their dam I especially remember. The pups were half grown and as playful as kittens I was within a few yards when a pup scented me and ran into the brush. The mother sat staring at me until I purposely moved. Then she gave 2 short, howling barks, and in an instant all were in cover. In the same way I surprised a lynx. He showed no fear, although I was within 20 feet of him. I spoke to him and even struck the water with my paddle without causing him to flee. He merely held his head low, and every few seconds would drop it a little and wink both eyes. He kept that up until my approach fairly drove him into the brush.

In the 1,500 mile trip I saw a few fish-hawks, Siwash robins, magpies, and great numbers of violet, green, and barn swallows at every cliff. Along the coast and within the range of tide water, all the water fowl in creation appeared to breed. Even on the fresh water lakes in the tundra, hundreds of miles from the sea, they fairly swarmed.

The common rabbit is exceedingly abundant along the Kuskokwim river, from Bethel up. Willow grouse are numerous, and great numbers are snared by the natives. There is a run of some kind of fish every month in the year. The river is about the size of the lower Ohio, and is navigable 600 miles. So far there has never been a steamboat on it. It offers great opportunities for fishing stations and trading ports, and the region through which it flows is undoubtedly rich in minerals.

There is a large native population, perfectly peaceable and self supporting. I made the trip without fire arms of any kind and was everywhere well received.

THE PISTOL FROM A WESTERN STANDPOINT.

DR. E. F. CONYNGHAM.

The desire to carry missile weapons seems almost universal, and this desire has had attached to it the specifications, portability, compactness and the production of a lethal effect, this to be obtained quickly. With these was joined a fifth, that the weapon could be fired more than once in as short a time as possible. On account of these various desires we see on the old-time, single shot, muzzle loading pistol, a dagger, or 3-edged bayonet, folding alongside the barrel. That, however, was a clumsy contrivance. It was succeeded by the double barrel, and that by other plans, until from a flintlock weighing 3 to 4 pounds and firing one shot we have arrived at a weapon weighing about 2¼ pounds, shooting 8 or more times, and accurate at 200 yards.

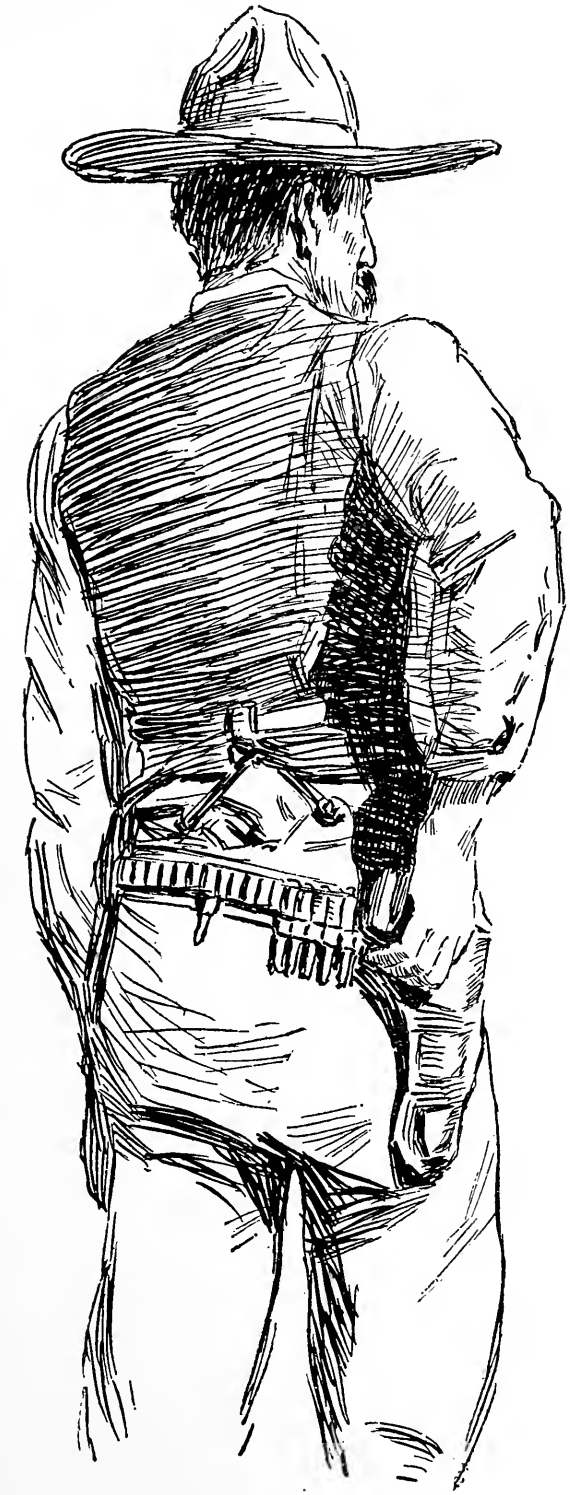


Fig. 1. DRAW.

The first pistol I ever used was a flintlock dueling pistol. The butt was shaped something like a saw handle, and came down almost at right angles to the axis of the barrel. The square end that projected below the little finger was covered with a large silver plate with the family crest engraved on it. The sides of the butt were nicely checkered; the back and underpart were not. In front of the trigger was a screw whereby the pull could be regulated. The wood of the stock extended within a short distance of the muzzle and had 3 silver headed push pins that extended clear through to hold the barrel in place. There was no groove for a ramrod. The barrel was made of what we to-day would call London twist, and it was slightly grooved The case contained another pistol exactly the same, a cleaning rod, ramrod, vent pick, loading mallet, bullet mould, space for bullets, 16 to the pound, powder horn, space for sand paper for smoothing bullets, and a copper bottle for holding oil. The whole outfit was made by a gunsmith on Dame street, Dublin, Ireland, and the pistols were beautiful weapons. I never saw modern arms that came up to them in finish. Harkom, of Edinburgh, Scotland, has a pair of gold and enamel, once the property of some Highland chief, valued at 80 guineas, over $400 of our money. They are truly Scotch. No wood enters into their construction. They were worn at the coronation of George IV. I regard them as the handsomest pistols in existence.

Between my first and last pistol I have owned many, of all makes, calibers and descriptions, with all sorts of shapes and weights of bullets. My advice to anyone thinking of buying a pistol is the same *Punch* gave about matrimony, "Don't;" but if you must "pack a gun" buy a cannon and carry it in a scabbard, like a man, not a small thing concealed in your pocket, like

THE DROP.
Figure 2.

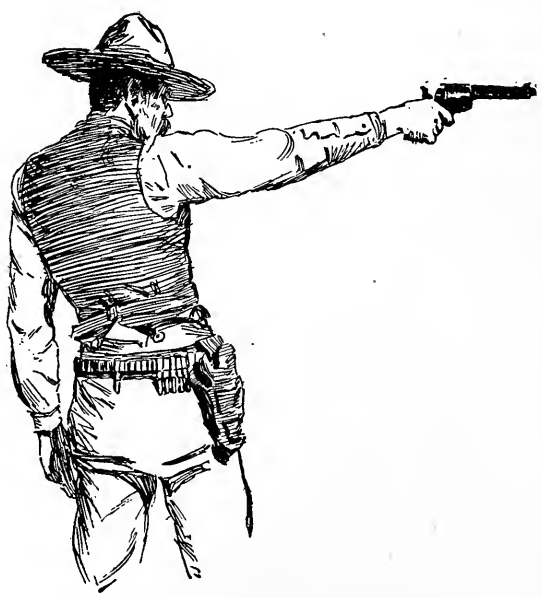
a sneaking coward. Should you be compelled to use a pistol the biggest will be none too big, and its appearance alone may possess such moral suasion that you will not have to use it.

In wearing a pistol learn to carry it in exactly one place. Have the scabbard riveted to your belt just where you want it; or wear 2 rifle cartridges, one on each side of the scabbard, and then wear the belt buckle exactly as you wish. Do not have the belt on the waist, but just below the tops of the hip bones. Put your gun in the scabbard and be sure the notch in the leather coincides with the trigger guard. If not, cut it out so the forefinger will easily drop on the trigger, for it is by this the weapon is drawn. I do not mean a double action, under any consideration; they are not sufficiently safe for a belt. Remove with a file the roughness on the top of the hammer and then smooth with emery.

Put on your gun unloaded. Holding your hand open, thrust your forefinger through the trigger guard (Figure 1), pull upward and forward until the gun is opposite the face, throw the thumb across (Figure 2), and give the barrel a quick flirt downward, at the same time pushing the arm forward. The pistol is then cocked and in position for firing (Figure 3). If your hands are soft and the roughness is not taken off the hammer, you will have a sore thumb after doing this 12 or 15 times. Hold the arm well out from the body, almost but not quite straight. With an angle in the elbow the arm trembles. Grip the butt well up toward the hammer, incline the head slightly toward the pistol, and as your eye gets the sights in alignment with the object make a steady pressure with the forefinger until the hammer falls. Should you have a cartridge in, let the recoil carry the barrel up, throw your thumb as before and repeat the former motions. By doing this you make the gun work almost automatically.

There is a system whereby you may discharge a single action more rapidly than a double and with more accuracy. It is termed "fanning." Bring the pistol up to the waist line, or a little higher, holding the whole arm and hand rigid (Figure 4). With the other hand open strike the hammer briskly at the same time the forefinger of the right hand holds back the trigger; or it can be tied back. Better still, when you are accustomed to using it that way, take the trigger out. For using either system described a trigger is not necessary, but for target shooting it must be used.

Never give your revolver into any person's hands, loaded or unloaded.



HANDS UP.
Figure 3.

FANNING.
Figure 4.

Do not carry it on the safety notch. Put the hammer between the cartridges or else on an empty chamber.

Do not let your pistol go 24 hours without cleaning, after using.

Do not practice the motions with it loaded.

Do not use factory ammunition. Buy the best shells and powder you can and load them yourself, starting with a 5-grain powder charge. The Ideal tools are satisfactory.

Do not shoot at a fixed target. Get something moving. A tin can supported by a string is good; or shoot at something from a buggy or horseback and mark in your mind's eye where the ball strikes.

Do not be discouraged. Keep practising.

Do not get a pistol that carries a bottle-neck shell. They are not good to reload with small charges.

Do not buy a gun with a longer barrel than 5½ inches. They can not be quickly drawn.

Do not buy a cheap weapon; get the best money can buy. Any is an expensive luxury.

Do not get a nickel plated abomination.

Do not drink intoxicants and pack a gun. They make a bad combination.

THE HUNTER'S REGRET.

KENSETT ROSSITER.

The woods were drear, 'twas a dismal day
'Neath a lowering sky of leaden gray.
Like the sea's wild sound, the pine trees' moan
Filled my ears, as I trod the woods alone.

I had traced their tracks with eager stride
O'er bog and mead and mountain side,
Till at last, outlined 'gainst the virgin snow,
On the streamlet's brink stood the buck and doe.

I aimed, I fired, and the buck lay dead,
Pierced deep by the hunter's cruel lead!
The doe fled off in the woods alone,
To bleat all night 'mid the pine trees' moan.

Yes, I had won; I had won the chase;
Yet I turned aside with a saddened face.
When I saw the look in those mild, brown eyes,
My heart grew dull as the lurid skies.

I trod along down the old tote-road,
On my way to camp, with my heavy load;
But the load on my heart will longer live;
I had quenched the life I could never give.

A GALPIN HILL RABBIT.

G. R. PECK.

"When a cottontail rabbit can furnish a man 3 hunts it is certainly a rubber rabbit, isn't it?" said old Si Van Netten to the crowd in the gun store.

"That depends on what kind of a man is after the rabbit, doesn't it, Si?" asked one of the boys.

"Well, I don't know as it is that, so much; sometimes it seems just luck. I'll tell you how it was. I was walking along near Auburn, N. Y., one day last fall. The season had hardly begun, but there was a hint of red and yellow in the leaves and a suggestion of haze in the air that made one think of gunpowder and game.

"I was on the ridge partly for exercise and partly to see if any cottontail had escaped the bag and ferret hunters who always infest the vicinity of towns. I had an old gun with me, not a flintlock, but still not an ejector. Best of all I had 2 hounds that could run a rabbit and loved to do it. It was late in the afternoon. The woods and underbrush wore their pleasantest smile and it was a privilege to be afield even if nothing in the shape of game turned up. There was the sweetest of odors in the air, and the sky was a dome of clearest azure, whether one looked to the North, where the smoke rose lazily from Auburn chimneys, or Southerly, toward the glassy lake. Little cedars were trying to live on sand and air and be somebodies in the tree world, and old apple trees in a hollow were bending beneath their load of sour and nubby fruit.

"While I was looking about, the hounds had been busy. Before long a note of warning from them gave me something else to think of, and I looked at the caps on the gun to see if they were all right and in place. The warning note was quickly followed by another, and I hurried to the edge of a path that I thought bunny would be likely to cross, because others in days gone by had crossed there. The hounds, in full cry, swept through a portion of the cover, out into the open and up the hillside through the woods to the top of the ridge. Then I knew the rabbit must be near me and that if he turned to the East he must follow the path near which I stood. Sure enough, the hounds turned my way, and about 3 rods ahead of them I spied bunny loping leisurely along as if in no fear of the dogs. As I raised the gun he saw me and fairly cleaved the air in a break for safety. The charge of shot damaged the golden rod behind him and the longeared hermit of Wintergreen hill was lost to view in the cover. When the dogs came up and asked for a look at the quarry I was compelled to confess my poor markmanship, and so in disgust all 3 of us left the hill for home. As I trudged to the road I thought a live rabbit had more interest for me than a dead one after all, and I was happy in the expectation of at least another day's pleasure on the hill.

"It is a mighty smart cottontail that can get away from you Mr. Van Netten," said Nance Cantelle, as he moved a little nearer the fire. The remark was not lost, and the gleam of pride that came into old Si's eyes showed his appreciation of the compliment.

"I went up there again a few days later," he continued, "and hunted all around Wintergreen hill, and as far to the West as Galpin hill. There the dogs routed out a festive young buck rabbit and chased him around the lot and back again. I could see the whole run, and it was worth seeing and hearing, too. When, at last, Brer Rabbit holed up, he was safe from me, and the game was over.

"It was about a week later when I again visited my happy hunting ground. Thinking I knew just where to look for bunny I went to Galpin hill; but as the dogs could not start our old friend we proceeded toward Wintergreen and there jumped him in cover on the hillside. That time he was taken by surprise, to judge from the music of the hounds, for both bayed from the first and both at the same time. It was a hot and merry chase, until I saw bunny and put an end to the whole business with oue barrel. I was sorry almost as soon as I had pulled the trigger. When he was dead the place seemed desolate. Nothing is there now that is attractive except the view and the little stunted cedars among which rabbits used to run."

Love never laughs at goldsmiths.—Exchange.

A GIRL AND A REVOLVER.

JACK PATTERN.

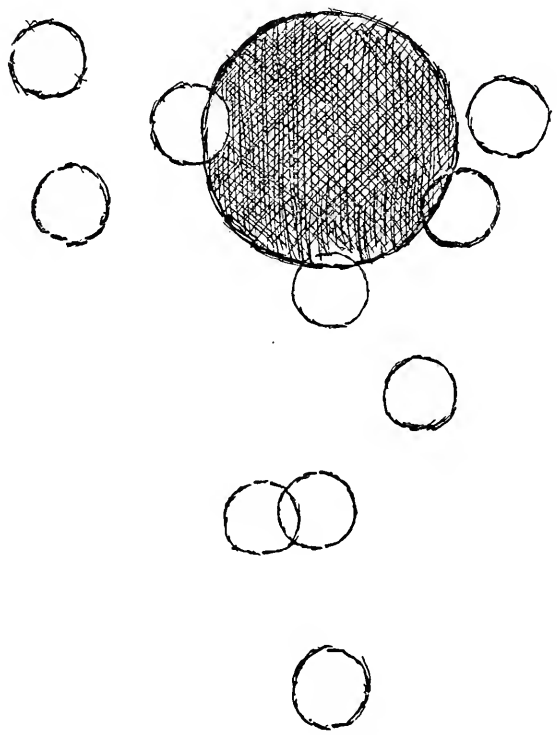
Miss Creedmoor is the daintiest bit of womankind that ever drew trigger. Tommy is a disreputable specimen of the *genus* small boy. One Sunday morning Miss Creedmoor, Tommy, the revolver, the camera and I all started for the shore of

HER FIRST BULL'S EYE.

Newark bay. Miss Creedmoor is a born shot; that is, she has natural sense of direction and is capable of becoming a champion some day. Chevalier Ira Paine used to say one had to have a little of the devil in him to win with the pistol. The Chevalier was right to a certain extent, but Miss Creedmoor has a quality that is every bit as useful as deviltry; a cool, placid temperament. She is not disturbed if she misses the whole target, nor does she show the least elation on making a bullseye. As she has also perfect eyesight, steady nerves and good physique, she needs only practice to become a great shot.

Up to the Sunday morning mentioned Miss Creedmoor had not fired over 35 shots in her life. I had previously given her one lesson in the handling of a revolver. The weapon, a 44 Russian, single action, was made especially for target shooting, with light trigger pull, 6½ inch barrel and Paine sights. The ammunition was the usual gallery load for the 44 Russian, 7 grains of ffffg. powder and a round bullet. This load gives practically no recoil in a heavy 2½ pound revolver. The grip of this revolver is unfortunately much too large for Miss Creedmoor's hand. She is scarcely able to secure a comfortable hold. That must be taken into consideration in judging her work.

On arriving at the shore we set up the target against a high bank of earth, a perfect natural butt. I then hauled out the shooting paraphernalia, loaded the revolver, and gave Miss Creedmoor her instructions: Stand in an easy position, right foot pointing at or a trifle to the left of the target, feet turned out naturally, heels not over 8 inches apart, left hand resting on the hip or hanging as desired. Grip the revolver in the right hand, rest the right elbow against the body, point the revolver a trifle upward and to the right, and cant it about 45 degrees to the right; loosen the grip, throw the thumb well over the cocking piece of the hammer, keep the forefinger extended and let it slip through the guard as far as convenient, but do not let it rest on the trigger. Cock the revolver and shift the hand back to the proper grip. On the model of revolver which we were using the perfect grip is obtainable; that is, in my opinion. The portion of the hand between the thumb and forefinger should just touch the thumbpiece of the hammer and the thumb should be fully extended beside the hammer, of course on the left side, and in line with the barrel.



10 SHOTS AT 15 YARDS BY MISS CREEDMOOR.

Grip lightly, almost loosely, the hand rather supporting than holding the revolver. Keep the arm perfectly straight and bring the revolver slowly up to the target. Try to get the top of the front sight level with the top of the U in the rear sight and just touching the bottom of the bull. Pull the trigger by a gradual squeeze of the whole hand. While cocking the pistol take several deep breaths and take a deep one while bringing it up; then do not breathe again until the shot is fired.

Miss Creedmoor did all this as if she had been at it all her life. If you let beginners have their own way they usually wave the revolver around their heads, cock it with a snap, flourish it some more, finally point it somewhere toward the target and let go. The bullet goes anywhere except within 45 degrees on either side of the target, unless, perhaps, the novice keeps too much pressure on the trigger during the preliminaries and fires up in the air. Miss Creedmoor's first 6 shots were thrown around a 2-foot circle. After that she steadied down and made the most remarkable 10-shot group I have ever seen, all things considered. Bear in mind that when she commenced this group she had only fired 35 shots in her life, and that the grip of the pistol was absurdly large for her hand. Needless to say I was delighted with her work.

We took about 19 photos, all of which turned out to be silhouettes, and then cleaned the pistol. Miss Creedmoor insisted on cleaning the cylinder while I was wiping the barrel. She did it well, too. I was surprised. A woman generally cleans a gun with about as much gumption as she sticks a fish-hook through a worm.

THAT PESKY POLE.

A. L. VERMILYA.

Let us go and snatch that old North Pole bald headed,
Let us bring it home, and stop the blooming show;
It's a nuisance and a menace to the nation
While it sticks there in a bank of Arctic snow.
It has dodged around and cheated us too often,
Now we'll go and fetch the wily thing away;
We will set it up in town,
Paint it blue, or green, or brown,
Nail it to the earth and never let it stray.

For that skittish Pole has been a lot of bother,
And we've had to rescue someone every year
Who had gone to rescue someone gone to rescue
Someone else who'd journeyed to that region drear;
So we'll pull it up, and try to stop excursions
To that country of eternal snow and gloom;
For it's not a pleasant land,
Where there is no German band,
And the sweet magnolias hardly ever bloom.

On its top we'll find the bear and dodo sitting,
But we'll pull the pesky thing up by the roots;
Then we'll have no stubborn pilgrims up there trying
How to live all winter on a pair of boots.
This will throw exploring fellows out of business,
And for them we shed a large and salty tear;
But although they like to roam,
They'll be better off at home
Than up North among the icebergs cold and drear.

But most like they'll find excuse for exploration
After we have brought away that artful Pole;
They will want to see just where the thing was growing,
And will go and search around to find the hole.
They will try a shorter cut to Indo-China,
If they possibly can squeeze or wiggle through;
And with reindeer, dog or goat,
Big balloon, or tin-clad boat,
They will still go hunting round for something new.

TRAPPING THE MINK.

J. A. NEWTON.

In some respects the capture of mink affords the trapper the greatest possible satisfaction. Under proper conditions the animal is not difficult to catch; his skin brings double the price paid for a large prime coon, and because of the small size of the mink the pelt is much easier to remove and stretch.

No matter what his pretensions, each trapper of any note has his specialty, in that he is most adept in trapping one peculiar kind of animal. One may be an expert in catching muskrats and a bungling mink trapper. The methods I use I have learned from specialists, and have thoroughly tested. At first I tried digging out the secrets of successful mink catching alone, except that I patterned to some extent after the work of ordinary trappers.

Mink may be taken successfully with bait only late in the fall, while water is yet open, and after it has grown so cold as to limit the supply of their natural food, such as moles, mice, frogs, fish, crawfish, etc. No other bait is so effectual as muskrat meat. Place the trap next to the shore. If it be behind a rick or driftwood, an overturned root, or under an elevated log or overhanging bank, so much the better. Set it half an inch under water, and place 2 or 3 water soaked leaves carelessly over it, weighting them down with a pinch of mud to hold them in place. The trap should always be set where water grows deep rather abruptly, so that an animal may drown when caught. When the trap has been set and staked full length of chain in deepest water, a portion of muskrat flesh is posted on a stick over deep water, a foot from the trap. Choose a stick having a prong near the top to keep the bait from sliding down. If the mink attempts to reach the bait without swimming, which he usually does, he is generally caught while treading in the water's edge.

Sometimes certain mink avoid posted baits. Especially is this the case with those that have been nipped by traps. This fear of posted baits is often noticed in the small female mink found living on the smallest brooks. For such animals, instead of posting the bait I pin it down to the bank with a pronged skewer and use only a small quantity of bait, say a single muskrat leg. This is infallible if bait is noticed at all. The bait is to be placed but a few inches above the trap, which is under water as before mentioned.

In midwinter when all water is frozen and mink are running on ice in swamps, their travels seemingly aimless, bait is of but little use. It freezes hard, has but little scent, and is usually refused when found. From February 1st and in spring, bait is worse than useless. The animals are neglecting the matters of food then; it is the mating season, and bait only serves to make them avoid a trap. At this time traps must be placed in established runways and covered lightly with snow; the chain to be stapled to a bush. If there is no snow, or if it should thaw during the day and freeze at night, covering with snow will not do, as a crust will form preventing the trap from springing. Under such conditions traps must be set under overturned roots, using dry dirt for a covering, or under logs and brush piles where the trails indicate the most travel, and be covered lightly with material matching the surroundings. If under a brush heap among leaves, use leaves for cover; if under a decayed log, use dry powdered rotten wood.

In running time every hollow log will be inspected and traveled through by mink. When setting a trap in a hollow log, use dry worm dust for the covering. In all cases cover with material to match the place of setting.

The most valuable suggestion I ever received came from a French Canadian trapper known as "Old Max." I had been obliged each year to see winter begin with a number of bait-shy mink still at large in my territory. Max volunteered to make a trip with me just before fall trapping ended, to let me into the secret of success where others failed. As we came to one of the creeks I had been trapping and on which were still 2 mink I had given up hope of catching, Max said:

"I don't see what you want of bait here. I can catch every mink that goes up or down this creek."

The banks were high in many places and were often undermined. Max took one of my traps and wading out in the creek, next to an undermined bank, bade me follow.

"Do you see mink tracks in under there?" he asked.

"Yes," I replied, "I have had a trap there right along and kept it freshly baited, but couldn't catch them."

"That's the trouble," said Max, "you don't want any bait for a shy mink; they give your trap a wide berth. I'll show you how to fool them."

Taking the hatchet Max dug down the bank where a point came nearest to deep water, so as to leave it too steep for a mink to climb.

"A mink is sure to go under this bank," said Max. "I've fixed a place where the steepness of the bank will crowd him in the trap. If you had a bait stuck up he either wouldn't go under or else would swim around the whole business. So I dig out enough to leave the trap barely under water. Now I'll put an old leaf or 2 and a little mud on the trap and drive the stake down until the top is under water." Max set one more trap in a similar place and said:

"Now don't come here for a week and then see what luck you have."

I did as directed and when I visited the traps each held a drowned mink standing on its head in deep water.

No mink ever lived but could be caught in the way shown by Max. This method is known as a "blind set," and is exceedingly successful. The No. 1 trap is large enough for water sets; but in winter when making a dry set it is, with its covering of snow or other substance, apt to clog in springing, thus throwing out the mink's foot. For that reason the No. 1½ trap should be used; it will clear itself, and takes a hold so high that the mink can not escape by foot amputation.

Mink should not, as a rule, be caught in the Middle and Eastern States earlier than November 15 nor later than March 15. In the first case they are still unprime and in the latter are badly faded in color, and have begun shedding. Soon after this the skin turns from its winter color of red and white on the flesh side, denoting primeness, to black, which is caused by the roots of innumerable hairs that are apparently pricking through, and the fur itself soon becomes thin.

AMATEUR PHOTO BY HENRY P. MORTON.

FAREWELL TO SUMMER.

If you find it impossible to tell twins apart, tell them together.—Scissors.

ROSS AND THE CINNAMON.

O. FRODUL.

Our friend Ross, near Three Rivers, thought last year that the bears were too familiar with his mountain home, so not far from his house he set a No. 6 Newhouse 42-pound bear trap, with a 10-gallon honey keg nearly empty in front of it, setting it so the bears could reach the trap only from one side. The next day Ross visited his trap, but found no bear nor any bear sign. Two days later he visited it again, and when getting near the trap he heard some suspicious noise. Going softly to a spot where he could see the trap without showing himself, he saw a 300-pound cinnamon bear sniffing and smelling around to locate the honey perfume. He finally succeeded, and licking his nose and mouth with great gusto he went toward the trap and honey keg. When he was in front of the trap he looked at the spot with great distrust. He was evidently suspicious. He did not seem to understand why anyone should leave an open keg containing sage honey in the woods; but the honey was there and smelt tempting. He went closer, carefully avoiding the trap, as if he knew there was something wrong. Finally one more step, right beyond the trap, and he could reach the honey. He put his head into the keg. Surely, it was fine honey; not much of it, but it was good, natural unadulterated sage honey, of California bees. Licking his mouth and his nose, he was so satisfied that he forgot the whole world, and putting his head again into the keg, he sat down right on top of the 42-pound No. 6 Newhouse bear tamer.

With a terrible growl the bear sprang high into the air, with the honey keg over his head and the big trap fastened to his hindquarters. With a loud yell Ross also sprang up, forgetting all precautions. However, none seemed necessary. The bear already had the top of the keg broken to pieces and the body of it was hanging on his neck like a large collar. He had also torn himself loose from the trap, which was fastened with a chain to a tree, sacrificing a valuable part of his hindquarters. He did not wait for Ross. Bleeding freely he disappeared in the brush, and all Ross can show for his adventure is the part of himself which the bear left as a memory. That bear never showed up again. He was branded and could be easily recognized among thousands.

A DOG'S STORY.

LAURENCE MOTT.

I wondered why my master went a-walking every day,
Down in a certain shady lane, not very far away,
But now I know. He waited there a maiden fair to meet,
And last eve as she tripped along, with footsteps light and fleet,
There came with her a noble dog—a greyhound, tall and slim;
We made friends, and he was so nice I grew quite fond of him.

"Comrade," the greyhound said, "where is your pleasant master bound?"
"Just here, good friend," said I; "he comes to wait upon this ground
Your mistress fair and young to meet, I am not certain why,
But think he loves her very much, for I have heard him sigh
When he has failed to meet her. But my friend can you tell me,
Does your fair mistress care for him, or does she strive to see
How many hearts her smiles can break, how fill men's souls with pain,
By casting their true love aside with cool and proud disdain?"
"Just look!" the greyhound said; the scene that met my eyes
Accorded well, it seemed to me, with June and summer skies.
My master's arms about the maid, her soft cheek on his breast,
Upon his face a happy smile; on hers, a look of rest.
"Let's go," said I, "it is not meet that e'en our eyes should see
The kisses that these lovers give beneath the maple tree."

THE DAY BEFORE HATCHING.

I send you herewith a picture of a woodcock on her nest, which I made the day before she hatched. I found the nest the 22d of May, photographed it the 23d, and the 24th she had hatched and gone.

I took Arthur Parker and E. C. Becker on the 24th, to take another photo, but the bird had gone.

This is the best photo I have seen of a woodcock on nest. Have followed the

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My camera was only 3 feet from her. One of the legs was only 8 inches from the nest. She was so mad you see her bill was open.

I placed my hand on the bird, as I left her, and said:

"Old woody, I'll see you tomorrow."

woods 30 years and this is the 7th nest I have found in all that time.

Since our new law has gone into effect all game birds are increasing in this locality. In fact, some species are now plentiful.

Henry A. Morver, Worcester, Mass.

Teacher—Johnny, can you tell me how iron was first discovered?

Johnny—Yes, sir.

Teacher—Well, tell the class what your information is on that point.

Johnny—I heard pa say that they smelt it.—Four Track News.

DUCKING ON THE RAPPAHANNOCK.

STEVE.

It was the first week in November, and I longed for a hunting trip. While wondering where I should go, I received an invitation from my old friend Peter Sheldon, to visit his home on the Rappahannock. Peter and I had hunted together many times, having been neighbors before I moved to Baltimore. I was willing enough to return to my former home for a time and at once began to get ready. My Winchester repeating shot gun was carefully packed. Next came a new .303 Savage rifle, which I was longing to try. Then I put in my little 22 caliber just for fun at the target. At last I was ready to start and boarded a South-bound steamer.

The next morning I was up and on deck just as day was breaking. We were then nearing the mouth of the Rappahannock, and already ducks could be seen. As we entered the river a bunch of mallards flew within gunshot of the steamer. I watched them until they disappeared in the haze near the shore. Soon I espied a large flock of geese about a mile away, and I began anticipating a larger time.

I reached my destination about 11 a. m. Peter was at the wharf to meet me; so was old setter Doc and little spaniel Bess. Old Sam was also on hand to drive us to the house, his honest, black face agrin from ear to ear.

We soon reached Peter's house, a typical Virginia homestead, facing a creek. From the porch I could see the Rappahannock, which is about 5 miles wide at that point. Peter pointed to a 15 acre field of stubble with a strip of buckwheat alongside and said there was more than one nice bunch of birds in it for us to tackle when we tired of ducks. After supper I showed Peter the new Savage and he agreed with me that it looked as if it would shoot when called on. Peter said we would better take the canoe in the morning and have Sam sail us up the river if the wind was favorable; if not, we could go out on Yankee point and try the ducks from a blind. We were early aboard the canoe, a 20 foot craft and a fast sailer, with lots of room. At last we reached a small inlet that led us to the river. Sam set the foresail and we took our positions; I in the bow with the Winchester pump gun and Peter amidship. There was a steady breeze blowing up the river and every little while I would get a dash of spray behind my collar. Presently I saw a bunch of mallards and gradually drew nearer. Sam pointed the canoe a little to one side to give Peter a clear shot. I took the nearest duck to the left; missed with the first barrel and dropped him with the second. Peter scored one with each barrel of his old Parker.

Sam ran the boat up to the ducks we had dropped and brought her up in the wind. Little Bess was all of a tremble. Peter dropped her overboard and she soon had the birds alongside.

Then Sam saw another flock nearer shore, and stood in for them. Before we reached them a big flock of redheads came down by us. Peter scrambled to the other side of the boat and we had some fun. I dropped 2 with the first barrel and one the next. Peter got 2 with each barrel. It fairly rained redheads, but they were close and well bunched. Bess was barking and ready for a jump, but the water was too rough; so we sailed around and picked them up. I had to shoot a cripple that was doing his best to get away.

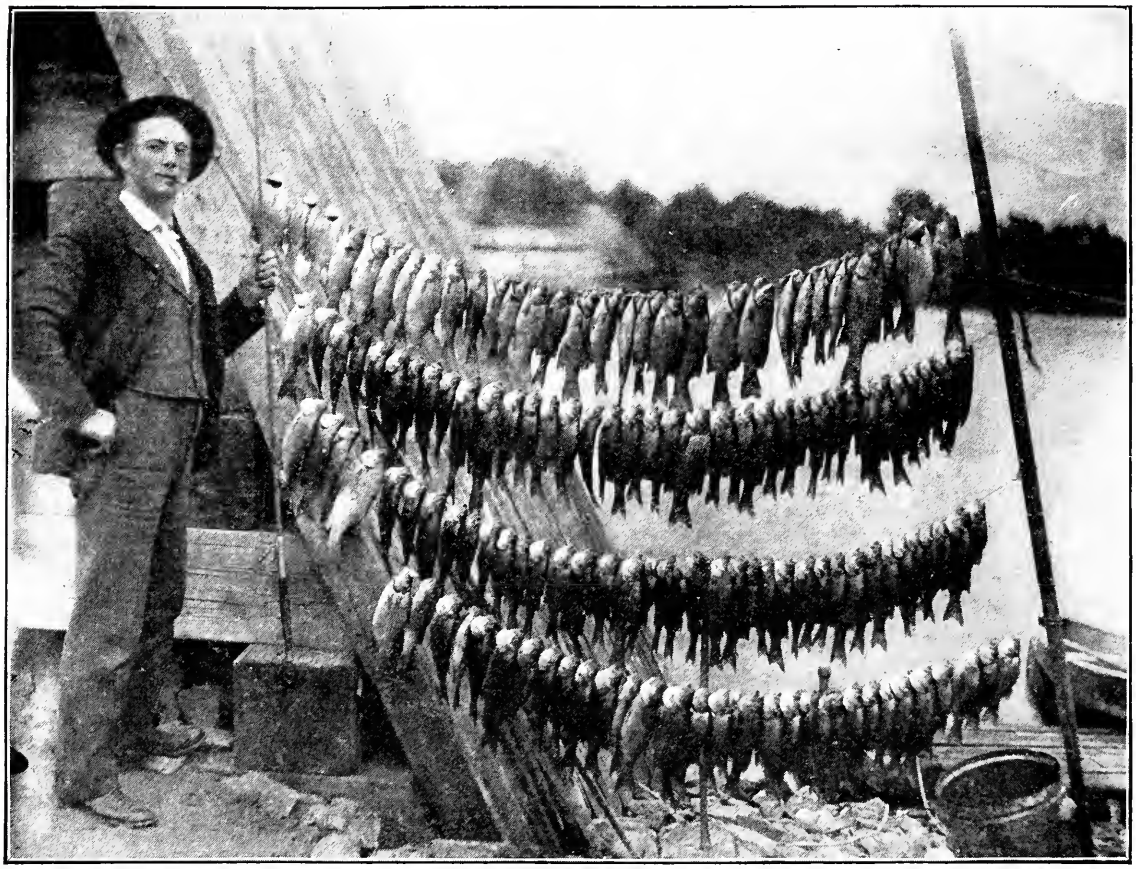
Then we headed for Yankee point, which extends about 200 yards and is covered with grass waist high. It forms a cove where the water is usually smooth, and is a grand feeding ground. Sam ran the canoe ashore South of the point and we took out the guns, including the Savage. At the edge of the bluff overlooking the cove we peeped through the grass. We saw several hundred ducks just out of range. We went back to cover, filled our pipes and concluded to wait a while to see if the birds would come nearer shore.

I was lighting my old briar when I heard the honk of a goose, then a whole chorus of honks. About 8 geese dropped just outside the point, in full view. They got up again and came inside the cove, but were still about 200 yards away. Peter told me to try the Savage. I left the peep sight at point blank range and used the large aperture. Then I picked out a goose; the light was fine and a goose makes a good dark target with the ivory bead sight. The gun was loaded with regular cartridges. I rested the rifle on an old stump, aimed a trifle high and pulled the trigger. Away went all the birds except one goose. He seemed trying a double shuffle, but soon lay quiet on the water. When we pulled him in we found that he was shot through the neck.

During the remainder of my stay we hunted everything there was to hunt; quails and ducks mostly. We had a few coon hunts with Sam; and on rainy days we read and smoked. I had the goose mounted after reaching home, and when I sit in my den and look at the result of my first shot my chest expands about 7 inches.

A WISCONSIN BRISTLEBACK.

I send you a photo of myself and 138 black bass caught by me at Prescott, Wis., one morning, about 2 blocks from our hotel at the foot of St. Croix lake. I also caught at the same time 52 skipjacks which



are not shown in the picture, as we forgot all about them. They lay in my boat to the right of the picture. I was seen from the shore, by a number of people in our town, when I was making this catch.

Chas. H. Stapf, Prescott, Wis.

ANSWER.

It is a pity some of the people who saw you slaughtering black bass at this disgraceful rate did not chuck a load of buckshot into you. That is about the only kind of medicine that will cure the disease with which you are afflicted, and the sooner someone administers it to you the better it will be for the decent anglers of your region, and for those of the country at large.—EDITOR.

"That little minnow," said the first fish, "seems to have got a big opinion of himself all of a sudden." "Yes," replied the other, "he managed to wriggle off a hook this morning, and then heard the fisherman bragging about his size."—Four Track News.

THE NEW YORK DEER LAW.

JAMES M. GRAVES.

Let us cling with all tenacity to the motto you suggested: "Stop spring shooting! Stop the sale of game!" Why spring shooting was ever allowed is a mystery to me. I never pass bunches of ducks or snipe hanging in market at that season without involuntarily beginning to compute the number of birds less in the fall that will result from such slaughter. I do not mean to imply that I have never shot such birds in the spring. It takes a lot of hard thinking and self-sacrifice to abandon a pleasure sanctioned by law and being pursued with zest by your friends and others. Last spring, however, I shot a dusky duck and on dressing it found a bunch of newly formed eggs. I took an oath then never again to shoot a game bird in the spring, law or no law.

A theory has been advanced by some and denied by others that certain of our ducks would nest here if let alone in the spring. It is not uncommon for dusky ducks and teal to nest in this section. I have seen many a flock of ducklings in the marshy brooks of my native town on the St. Lawrence.

It seems a pity that a good law can not be given a chance to prove itself. When the Ives law was passed prohibiting hounding and jacking for 5 years, why was it not let alone for the time designated? It was the general opinion among sportsmen that deer were on the increase under it, and what more could we want? But no; it must be monkeyed with. The term is not elegant, but is most appropriate for much of our game legislation.

With the ostensible purpose of protecting deer, the August shooting was cut off. While this meant protection to some extent it would have been 10-fold greater had the November shooting been cut off instead. Or, if they were bound to cut off the first 15 days, then cut off the last 15 also. The people who visit the Adirondacks for camping and hunting are not fools. They know that in 3 years out of 5 the conditions are such that more deer can be and are killed in the 15 days of November than in all the rest of the season. That game law is best which furnishes most protection to game and gives pleasure to the greatest number of sportsmen.

By cutting off the August shooting a larger number of people are deprived of the sport. They have no other time at their disposal; and as a whole they are persons who have as great a respect for the law as any other class, if not greater. For a law to be of any avail it must appeal to the judgment of the majority affected by it. It must be reasonable, otherwise the whole standing army would be necessary to enforce it.

The persons thus deprived would swallow their medicine with good grace if they knew it was bringing the most protection to the deer; but they know it is not. They know that 5 deer are killed in the 15 days of November to one in the 15 days of August. A law of this nature breeds contempt for and disregard of itself. I know whereof I speak. I have not missed a summer in the Adirondacks for 12 years and never had I seen the laws so well and cheerfully obeyed as during the summer just preceding the cutting off of August shooting. There was a growing belief in the efficacy and justice of the law.

On the other hand, I never saw such an utter disregard for the law as during the season just past.

Any 10 year old boy can sharpen a stick and go out and kill a deer on soft snow. The first snows usually follow a heavy rain which has so saturated the leaves as to make them practically noiseless even before the white mantle completes the work. The hunter can select his deer from the size of the track and strike out with a definite aim in view. His moccasined feet make as little noise on the soft white cushion as the blade of a skilled paddler in a placid stream. Often he comes on his quarry asleep in its noonday bed and the animal dies without even seeing the face of its assassin.

To illustrate the result of snow hunting I refer to some of the clubs whose members are mostly of this town. Last year the Inlet and the Granshue Clubs killed 45 deer on the snow. The previous year the latter club had close picking to obtain venison enough for camp. The season was dry, but when the snow came they killed 17 deer in 4 or 5 days. Two years ago in the region where I go, a reliable native told me there was not a man in the neighborhood, or a boy, either, of hunting age, who did not kill a deer on the snow the last day of the season and many of them killed 2 or 3. Could these things have happened still hunting on bare ground or in foliage?

Moreover, when a party go into camp in November they go solely for hunting. They have to keep on the move to keep warm. There is no sitting down on a log for an hour or so to smoke, nor sitting with back against a tree for a snooze.

Deer shot in November can be hung up

with perfect freedom from decay until the season closes, and this is a temptation for a large party to kill their allotted number, whether individually or by party. The natives will take what they need for winter use anyhow; but there is a double temptation in the opportunity to shoot for visitors.

In August the conditions are much different, as anyone who has still hunted in that month can testify. Most people in the woods at that season are there chiefly for rest, recreation, and escape from city heat. If they are at liberty to hunt it adds zest to their recreation and their vacation does them all the more good; but, more often than otherwise, the hunter's sole reward is a glimpse of a white flag seen for an instant and then lost in the leafy labyrinth. It does him good, however, and the deer no harm.

When you wish to get a man's candid opinion in regard to a game law it must not be, in many cases, when he knows it is for the press. You must catch him off his guard. I have made a point of talking with sportsmen in this section and without exception they agree that the November shooting is the greatest menace to the deer supply and should be abolished. They acknowledge that were it cut off many a man would have to go without shooting a deer, but they would have the same chance as the rest. Men who must have a deer driven up under their noses to be shot should not be taken into consideration in measures aiming at the protection of such animals.

It is amusing to consider the pleas made to legislators in regard to the game laws. Here is one sample: A man went to Mr. Babcock, our assemblyman, and urged him to work for a law permitting hounding. He said the deer were becoming so tame they were working out into the open country and farmers were killing them. If hounding were allowed they would be driven back into the woods where sportsmen could get them.

What nonsense! As though farmers were not entitled to shoot game in season. In fact, they practically hold the key to the whole situation and it is only by their courtesy that most of us poor mortals are given the freedom of the woods at all.

I do not wish to be understood as advocating a return to August shooting; but I do say that if it is not allowed, then justice and protection alike demand that the last 15 days be taken from the open season. Furthermore I honestly believe that with the latter change made, the 15 days could again be allowed to advantage in August. More sportsmen would be given a chance, the law would be better respected, and with the non-hounding and jacking provision fairly well enforced, I believe deer would multiply as never before. I do not say this from any selfish motive. I always have at least 5 days of the open season at my disposal and have never seen the time yet when I could not kill 2 deer in that period in broad daylight, if I set out to do so.

THE SCREECH OWL.

JOHN HOWARD, M. D.

What sound is this that's heard amid the night,
Like some lost soul far wandered from its rest?
'Tis but the owl that, leaving its snug nest,
Flies slowly forth to shriek its note of fright.

But when the day awakes all rosy bright,
And scans the earth now in its glory drest
The owl his weird cry then doth quick arrest,
For evil sounds, like deeds, distrust the light.

What means thy plaint that echoes through the vale?
What message bringest thou, ill-omened bird?
Save for thy wail no other sound is heard
To mar the quiet of the evening pale.

So human is that agonizing call,
It seems a soul despairing in its fall.

FROM THE GAME FIELDS.

The man who quits when he gets enough, with plenty of game still in sight, is a real sportsman.

FINN SHOULD TAKE A REEF IN HIS CAUDAL FIN.

The enclosed clipping, published in the New York Times, Sunday, June 22, contains so many misstatements and adverse reflections on the guides and residents of Jackson's Hole that I desire to give you the benefit of my personal experience in that region.

First ground-hop is the statement that one George William Finn went into the Hole in September, guided several dude hunting parties from the East and charged them $10 a day and grub. Anyone who has ever hunted in the region knows that the fixed price for guides is $5 and grub. Cooks, packers and horse wranglers get less. If Finn went into the Hole for the first time last September he did not take a party out with him as guide. He may have gone along as grub rustler for Josh Adams, but more likely he was at home.

When Finn makes the statement that there "was heaps of hunters all over the hills, and the rifles could be heard bustin' and bangin' away all day," he draws heavily on his imagination. I happened to be in those same hills all through September and only once did our outfit hear a rifle shot from another hunting party; and we covered considerable territory, too. This Finn got into the clutches of some over zealous news shark, and the write-up poses Finn as the oracle of Jackson's Hole and the fast disappearing elk. He was talking big medicine and the reporter raised his ante. It is time both were called. Such men are the bane of all honest sportsmen, and much injustice is done by them. Listen to Finn's yawp:

"The young man described how the carcasses of elk, killed by hunters, could be found in the hills, and bones and antlers scattered everywhere." Certainly bones and antlers are found everywhere, especially the latter. Any tenderfoot dude knows that the antlers are shed every year, and where such immense herds of elk roam the hills it is perfectly natural that shed horns should decorate almost every butte and mountain. This man Finn argues that because they are abundant the elk are dying out! In that climate bones and carcasses last for ages. It is true that a number of elk are found with their tusks removed, antlers and carcasses undisturbed. The reason is not far to seek. Every winter when the snows are deep and feed is scarce, a certain number of elk, bulls and cows and calves, die of starvation; many more than are killed by the whole force of hunting parties invading the region every fall. It is a lamentable fact that tusk hunters also kill bulls for their teeth, but such hunters are few. The tusk hunters go out early in the spring and extract the teeth of the winter-killed animals; and that is why so many untouched carcasses are in evidence, antlers and all.

The inference that Indians are largely engaged in this nefarious slaughter is all bosh. In a 4-month sojourn in the region I did not see one Indian. The country is hoodooed for the redskin since 1894, when trouble was precipitated because the ranchers combined to put a stop to the indiscriminate killing of game by Indian hunting bands. At that time 2 Indians were sent over the Big Divide by the Winchester route, and the noble warrior shuns the Hole.

I saw thousands of elk during the summer of 1901, at close range, photographed them, and watched them on the licks. I do not remember having observed one elk in "all states and stages of maimed conditions," despite the fact that Finn says the country is alive with such fruit of the dude sportsmen's efforts. Elk in Jackson's Hole are in a flourishing condition, for every band last summer had a large percentage of calves. Any reader of RECREATION will readily recall the excellent photographs of immense herds of elk which have been sent in by that indefatigable guide and amateur photographer, S. N. Leek, of Jackson.

The statement that the ranchers are afraid of poachers and that the game wardens are of no earthly use is nonsense. The ranchers are fully alive to the fact that the preservation of the elk in the Hole is of inestimable value to them. They make good money by guiding hunting parties every fall. Last September every available registered guide was in the hills. They know that the extermination of the elk would cut off a great slice of their revenue, and, as a matter of fact, would render it impossible for them to make a ranch go. If the list of members of the L. A. S. is conned, it will be found that a good percentage of the registered guides in the Hole belong to the organization and live up to its principles. An arrest was made in the Hole last summer, by a game warden, of a man who was simply found out in the hills with a gun. The man was run in on suspicion and at last accounts the warden had not been shot.

There is a wholesome respect for the

law in the Hole. All through the summer it is almost impossible to obtain fresh meat there without sending over the pass to Victor, Idaho; yet the hills are alive with big bands of elk. To my mind, when a lot of hardy, hungry ranchers, every one the possessor of a good gun, go without fresh meat the entire summer, and it close to hand, it speaks well for the efficiency of the game wardens and the influence of the conservative sportsmen element among the ranchers. They know enough not to kill the goose that lays the golden eggs. Any reckless rancher who goes elk hunting in the winter in Jackson's Hole has his work cut out for him to escape the clutches of the law. It is an immense territory, and of necessity can not be policed like Central Park, but the statement that wholesale carnage is being carried on there the entire winter is beside the truth.

The ranchers are allowed to kill 2 elk, just the same as any sportsman, and they do their killing late in November so the meat will keep during the entire winter. They go out in parties on these hunts and carry the carcasses home in wagons or sleds, if there is snow. That is probably the foundation for Finn's statement as to indiscriminate killing during the winter. Even then the ranchers do not kill the worn out old bulls, and leave their carcasses to rot, or rather to dry and mummify.

The real menace to the elk lies in the gradually contracting feeding grounds for the winter, due to the taking up of all available ranch land, for it is a good cattle country. This is the difficulty which must be met, and that within a comparatively few years, or it will be too late. Already there are plans under way to add to the timber reserve, which prevents farther encroachment by ranchers, and to extend the Yellowstone National Park reservation still farther South. Many good sportsmen are profoundly interested in this question. In time a solution will be reached and the preservation of the elk made certain; but there is no need of adopting Josh Adams' hired man's suggestion that, as an alternative, good and experienced men should be sent into the Hole to "swing off" a few of the poachers as a salutary warning.

I know your friend Steve Leek, of Jackson, very well, having put in 3 months with him in the hills last summer. It is a great country and should not be maligned.

W. S. W., Pittsfield, Mass.

IS READY TO SHOW PROOFS.

"Adirondack," in August RECREATION, says that if I will furnish the correspondence referred to as taking place between me and the New York State Fish and Game Commission, he will start an investigation that will unearth the "nigger in the woodpile." Unfortunately the correspondence has been mislaid, I not considering it of any more value than the said Fish and Game Commission's "protection." If "Adirondack" wishes to start an investigation I will be with him if he will reveal his identity, write me a personal letter or make an appointment. Lock Box 271, Schuylerville, N. Y., is my address. I will make an affidavit to any and all statements I made, in the article in question, give names of parties referred to, etc. All that has been or is being done in the line of game protection in this section is being done by the L. A. S. or local organizations. The State affair strikes me as being a big bluff, its offices "grafts," and the organization, from the standpoint of game protection, a farce.

I was recently told of a case of a "good fellow," as regards our ruling political organization on caucus and election days, who, during the summer months, goes openly afield with a double barrel shot gun, shortened to conceal under his coat; and who has, at the opening of the season, scores of game birds in cold storage for use in sporting resorts, in some of which it is suspected that persons in political high life have more than a passing interest. I will give "Adirondack" this man's name, my source of information, tell him where he can obtain a description of the man's outfit and the number of birds he had on one occasion, at the opening of the season. In my opinion the woodpile nigger sits boldly on top.

W. M. D., Schuylerville, N. Y.

A SUCCESSFUL EXPEDITION.

Game Commissioner Johnson and his force didn't capture any Indians, but this was as expected by the people of this county. The Utes had due notice of Mr. Johnson's approach and the redskins were safely over the border and on the reservation long before the Commissioner's force reached the Utah line.

However, the expedition was not barren of results. Quite a number of Utah people, generally called Mormons, were caught and made to pay dearly for violating the Colorado game laws. A party of 4 was caught North of Three Springs, and 2 men were caught on Yellow creek. All had deer in their possession, and all were taken before Justice Shankland, of Angora, and fined according to law. The largest haul, however, was made near Cottonwood, close to the Utah line. Under Sheriff Hornbek, Wardens Jay, Fenn and Blades got track of an outfit near Box-

elder, and the poachers got wind of the wardens about the same time. A hot chase ensued, the wardens overtaking the outfit within 4 miles of the Utah line. There were 3 in the party, George Bennett, Jos. Marshall and George Reynolds. They had 29 deer in their possession. They were brought to Meeker and tried before Justice Mow. Each was fined $40 and costs, amounting to $156.

Thirty-one deer carcasses were taken to town; a few were sold here, and the others were shipped to Denver, where they will be sold and the proceeds turned into the game fund. The money thus obtained, together with the fines collected, will more than pay the cost of the expedition.

The arrests were made in Chief Warden Jay's district, so Mr. Jay was the complaining witness in each case.—Meeker, Col., Herald.

OTHER EDITORS FALL IN LINE.

I am glad to see that some of our best newspapers are falling in line with you in regard to game protection. I enclose you an editorial from the North American, of Philadelphia, entitled "After the Game Hogs," which may interest some of your readers:

The Blooming Grove Park game law cases were not ended, it appears, by the action of the Federal Court in sustaining technical objection to the enforcement of the Lacey act. Secretary Kalbfus, of the State Game Commission, reports that he has evidence on which he expects to convict in the State courts 36 members of what is known as the Blooming Grove Park Association, of Pike county, for hunting in this State contrary to the act of Assembly requiring non-residents to pay a license before shooting in this State; 30 of these gentlemen for hunting on Sunday, many of them repeatedly; and 46 for carrying game out of the State. Of the 5 members indicted under the Lacey act, the secretary says, the evidence against them is straight, but they "prefer to quibble and fight over technical flaws rather than meet the facts as they exist."

Under the protection of law, enforced faithfully by Secretary Kalbfus, with the co-operation of the League of American Sportsmen, game is increasing in Pennsylvania, and but for the behavior of such swine as the members of the Blooming Grove Park Association of Game Hogs it would soon be as plentiful as it was 50 years ago.

RECREATION has converted a great many in our neighborhood, who were formerly game or fish hogs, into decent sportsmen.

Rabbits are more plentiful than for years. One morning recently a man counted 41 between Glossboro and Williamstown, a distance of 6 miles. Quails are also abundant, owing, no doubt, to their being fed and looked after during the severe weather last winter by the farmers and sportsmen. Let this grand good work of RECREATION go on, and let every sportsman in the country support it.

A. Beckett, Glassboro, N. J.

IT IS ODELL'S FAULT.

I like RECREATION, but have wondered much since I commenced to read it why there is no agitation in this enlightened State of New York against the marketing of game. I learn from RECREATION that it is forbidden in other States and should imagine that this great and intelligent Empire State would set an example for all the other States. It seems to do nothing of the kind and I am sorry for it, as I am convinced we shall never again have much game until the market hunter is knocked out entirely.

M. I. Mitchell, Ithaca, N. Y.

You have not read RECREATION carefully or you would have seen in almost every issue of it, for several years past, some declaration, either by the editor or by contributors, against the sale of game and against market hunters.

The League of American Sportsmen, aided by a few other good sportsmen in the State, who are not yet members thereof, secured the passage of a bill through our Legislature last winter prohibiting the sale of ruffed grouse, but Governor Odell saw fit to veto the measure. For this he will be held accountable in his coming campaign for re-election. This measure, as originally drafted and introduced, also aimed to prohibit the sale of quails and woodcock, but certain weakkneed members of the Legislature, who were afraid to antagonize the game dealers, had the names of these birds stricken from the bill. The time will come when New York will enact a law prohibiting the sale of all kinds of game at all times, but the friends of the birds must do a large amount of educational work before this can be accomplished.—EDITOR.

THROUGH NORTH PARK.

Last August, in company with Samuel Wright and 2 others, I started for the North Platte, in North park, Colo. On the way we fished in the Little Piney, the Laramie river and the Canadian, with success except in the Canadian. We finally arrived at Ten Mile, a point on the North Platte. We camped there and caught a number of rainbow trout. In the stomach of one I found a dead mouse, and in another a small water snake. I was told that a mouse makes a good bait for rainbow trout.

One morning the curiosity of a 2 year old buck led him within 50 yards of our tent. We all fired at him, but none of us hit him, as far as we know.

The Little Piney is a small stream; overhanging willows and buck bushes make fishing difficult, and the fish are small. The Laramie is a wide stream, deep and swift, and easily fished with hip boots. It contains the most beautifully colored trout in

the West. That part of the North Platte where fishing is best is not easily reached. It winds through high mountains, the water is deep and swift and the stream wide.

We had grouse and fish, and saw wolves, coyotes, bobcats, pine martens and other animals. Our camps were generally enjoyable. At night, high up in the mountains, we slept out in the open, rolled in blankets or with the tent over us. We were gone 2 weeks, and enjoyed the trip hugely.

Frank W. Henry, Greeley, Colo.

A GOOD GAME COUNTRY NOW.

Southeastern Alaska is now well known as a good game country; so was the East at one time. Alaska also will be known before many years as once a good country for game.

Snow begins to fall about the end of October, and then, say about December, when everything is covered with a heavy mantle of snow the market hunter sallies forth, white man or Indian. The deer have been driven down to the beaches of the islands and all that is necessary is to paddle along the beach and shoot down the game at close range; bucks, does and fawns, it is all the same. The poor animals stand huddled together with no place of escape open to them, for if they take to the woods they go only a few yards before they are in a snow drift, and thus fall easy victims to the butchers. Thus it keeps on until the snow leaves in April. If there were protection for does and fawns it would mean a yearly increase of hundreds of head, for there are many hundred does killed even while carrying their young. The Indians are the worst offenders of all, for nothing can be done with them. They are allowed to kill at all times.

Frank Dodson, Douglas, Alaska.

The Alaskan game law, enacted by the last Congress, will stop all this if the good people of that Territory will do their duty. —EDITOR.

IS IDAHO GOING BACKWARD?

Here is a letter written by Mr. F. S. Merrill, chief warden of the Washington Division of the L. A. S., to the Hailey, Idaho, Sportsmen's club. It gives some good advice:

In one of your local newspapers I notice an editorial statement that your club is going to "justify its existence" by working in the next Legislature of your State to establish market hunting. Every man in your State, who does not wish to see the extermination of your game animals, birds and fish will hope this report is not true. As your club is organized for the perpetuation of clean and healthful sport I do not see that it needs any other justification for existence; but if it does, may it not work for the preservation of the game of the State, rather than for the establishment of market hunting, which has been the prime cause in the past of the extermination of game birds, animals and fishes. The market hunter wiped out in a brief time the bison, America's noblest game animal; and if the market hunter were permitted to hold sway, that would also be true of every other game animal and bird. Do not try to justify your existence in that way, gentlemen. One market hunter can kill more game in a month than all the sportsmen of your county would in a year. F. S. Merrill.

A POOR WAY TO GET MEMBERS.

Enclosed I send you clipping from our official paper, The Modern Woodman. This is the largest and best fraternal insurance organization in the world, and I am a member in good standing, but I do not approve of securing memberships in any such manner as set forth in this article. There are more gentlemanly and sportsmanlike ways of accomplishing the same result. Neighbor Ford would better subscribe for and read RECREATION along with his Modern Woodman. He then might see the matter in a different light and be able to help eliminate some of the hogs from the Modern Woodmen, in which order there are supposed to be no other than honest men and "goats."

Neighbor Ford, do not allow another side hunt, for bunnies or any other game.

I trust RECREATION will find its way into Pegram, to educate some of those back-number brethren and make true sportsmen of them.

A. D. Andrews, D. D. S., Seattle, Wash.

The clipping enclosed by Dr. Andrews is as follows:

With the object of reviving interest and securing new members we had a rabbit hunt. The losing side received the spoils of the day, which numbered 230 bunnies. This proved a successful affair as we received 14 applications for membership.

SOME FLORIDA DOVE BUTCHERS.

What do you think of this report clipped from the Leeesburg, Fla., Item?

E. H. Mote and a party of friends went out Wednesday for a dove shoot. They bagged 160.

Unless it was a large party it must have been a drive.

W. N. Pike, Floral Park, N. Y.

I wrote Mote asking if the report was true and, if so, how many men were in the party. He replied as follows:

I beg to say there were only 4 in the

party. No one of them is a good shot. It is not unusual for one man to kill 100 doves. Four good shots could, on the occasion referred to, easily have killed 400 doves. E. A. Mote, Leesburg, Fla.

The great majority of sportsmen do not consider the dove a game bird. The few who think differently limit their killing to 10 or 12. Mote and his friends do not belong to either class; they are just butchers. They killed 40 each, and would have killed 400 or 4,000 had they been able. The slaughter was limited by their lack of skill only; certainly not by the possession of any sense of decency on the part of the killers.—EDITOR.

IN THE JAM.

One day last fall my partner and I started from camp early in the morning. After going about 5 miles we struck a fresh deer track and followed it to the edge of a cedar swamp. Fire had run along the edge of the swamp and there was a regular jam of down timber and dead brush.

The thought struck me that no deer would go far into that jam and I began a close survey of the place. In a moment I saw an old buck looking at me not over 3 rods away. He was behind a log with just his head in sight. As I cocked my 30-30 Rob heard the click and wanted to know what in thunder I was going to shoot. At that instant the buck thought it time to go, and he went as if he had been kicked. My first shot struck a log, and Rob in his surprise nearly fell off the pole he was standing on. He gathered himself together by the time I got another shell into my gun, and just as the buck jumped a log we both fired. I was lucky enough to plant a bullet where I wanted it. The buck ran out of the thicket and fell dead. It took us 5 hours to get him to camp.

I am in favor of prohibiting the sale of game of any kind, and the use of dogs for hunting birds.

A. A. Hathaway, Alba, Mich.

WISHES A LOWER RESERVE.

The chief obstacle to your most praiseworthy attempt to encourage the preservation of game is the difficulty of reaching that inert body of shooters who regard the game question only from a commercial standpoint. During my life I have seen wild animals disappear from so many wide ranges that I fear no moral suasion can prevent their ultimate extermination. Nothing except government interference and the establishment of safe breeding grounds can retard the destruction of all meat and fur producing creatures. The Yellowstone National park was a step in the right direction, but the confines of the preserve are too limited and its altitude is too high. None of our large game, save sheep and goats, would remain on mountain ranges or in mountain basins if permitted to resort as formerly to lower levels. The Missouri river breaks, in Montana, afford one of the finest opportunities for an extensive game reservation in this country. Grass, shelter, timber and watering places are ideal. I hope to see such a territory selected by Congress, where our fauna may be protected and made to multiply.

E. C. Hall, Jordan, Mont.

A MINNESOTA MAN'S VIEWS.

In a former note I advocated an earlier season on chickens and upland migratory birds for the Northern portion of Minnesota. On further investigation I think the chicken season as at present, September 1 to November 1, is perfectly fair. The birds are about full grown by September 1. North Dakota, however, should fall into line with us, both in its season on chickens and its spring shooting law, or lack of law. Snipe should be legal game by August 15, in this part of the State. Most of them leave us by September 1. If snipe, woodcock and plover were made legal game in the Northern part of the State from August 1 or 15 to October 15, it would be about right. There are men who would use such game for a cover in their raids on chickens, but such men will break any law. The only remedy is to fine or imprison them when caught. In this Northern country, where the seasons are manifestly shorter than in the lower part of the State, we should be given a chance at the snipe, plover, etc.

Rev. Lewis P. Franklin, Hallock, Minn.

GAME NOTES.

I send you a clipping from the Anderson, Ind., Democrat. If it is true that there are still buffalo in the Slave lake country, I hope means may be found to prevent their extermination.

The clipping reads as follows:

"QUEBEC.—James M. Bell, just returned from a tour of Central British America, reports large herds of buffalo in the vicinity of Slave lake and Slave river. Thousands of the buffaloes are ruthlessly slaughtered by Indians and white hunters. Mr. Bell will ask the Dominion Government to take steps to prevent extinction of the herds."

We have a few rabbits, quails and squirrels here; but they are so few that I have stopped shooting and do all my hunting with a camera.

O. D. E., Frankton, Ind.

This report is greatly exaggerated, as are most newspaper stories about wild animals. There are probably 100 to 200 wood buffaloes in the Slave lake country, but they are being relentlessly hunted by white men and Indians, and no doubt will soon be exterminated.—EDITOR.

I enclose an article from the Chicago Journal by a writer who seems to think the farmers of the South are inclined to make pets of the little gray squirrels. As a matter of fact, they regard them as more of a nuisance than anything else. I have 3 of the little rascals in the house now, and find great amusement in watching their antics as they scamper around in their cage.

J. G. Hall, Wagoner, I. Ter.

I am glad to know you are one of the men who do not believe in killing every wild creature that can be found. There is a growing sentiment among the better class of sportsmen that squirrels should not be killed at any time. The more closely people cultivate the acquaintance of these innocent little creatures the fewer shots will be fired at them. I have read the clipping you enclosed, and am sure it is a newspaper fake. There are probably no such number of squirrels anywhere as this reporter tells of. Nearly all the stories of birds and wild animals that appear in the daily newspapers are much exaggerated.—EDITOR.

Having read an article in RECREATION by Howard Eaton, of Medora, N. Dak., I feel like asking a few questions. Why did Howard allow the killers of those 2 big rams he speaks about to go unpunished? Does he not know the killing of buffalo, antelope, caribou, mountain sheep, moose, and elk is prohibited in North Dakota at all times? Is he a type of all L. A. S. members in the Western States? In this State the game laws are of no practical value, for there is no one to enforce them. It is true there is plenty of deer hunting, but there are no deer to speak of. There was one deer last year where there were 10 the year before. It is because the market hunter gets out in early fall before the open season and slaughters everything he sees. In most cases the meat spoils because of warm weather. I have seen as many as 30 deer in one heap, all in a state of more or less decay. I wish we could get enough good L. A. S. men in this State to stop such wanton destruction.

A Citizen of Stark Co., N. Dak.

John A. Steel's letter in June RECREATION, page 460, voices my sentiments, only too mildly. There is no language strong enough to properly condemn those who shoot indiscriminately, at long range or short, and cripple, wound or kill innocent, helpless animals and birds and call it sport. Surely they would not consider it sport if they would stop to think of the pain they inflict. They forget that every animal and bird has a nervous system and that gunshot wounds are among the most painful known to science. They forget also that animals and birds thus wounded must often endure great torment for want of water, in addition to the pain of the wounds, for no nurse can bring water, dress the wounds, nor set the broken bones. A true hunter shoots to kill, and kills only for useful meat. The health-giving exercise and exhilarating recreation are simply legitimate incidents. No true hunter, nor no true man, can kill for sport; consequently, in the words of Mr. Steel, "I detest the name sportsmen."

J. W. Carson, Frostproof, Fla.

Probably the supervisors of Westchester county are as wise as their fellows in other parts of the State. No fair minded person expects first chop statesmanship from a supervisor; but I think if they would spend more time learning the limitations of their authority and less in creating deficits in town treasuries, it would be to their credit. The latest vagary of our Honorable Board is appointing "town game wardens." They have as much right to appoint an ambassador to China. If their appointees make an arrest or a seizure they will get themselves and the county in trouble. The fish, forest and game law, 1901, article IX, section 176, says: "The commission may in its discretion appoint a person recommended by a majority of the supervisors of any county or by any game club incorporated for the protection of fish or game, as special game protector." In all the law there is not another word at all bearing on the subject, so the supervisors' right to make wardens must be God-given, like their obtuseness.

G. A. Mack, Pleasantville, N. Y.

October 14, 1900, was cold and drizzly; as unfavorable a day for hunting as could be imagined; but my partner, Bill Woodcock, and I were hungry for venison and hoped to find some at Twin Sister lake. When we neared the lake Bill told me to follow the road to the shore while he would cut across the beech flats and perhaps drive a deer to me. I had barely reached the bank when I heard the crack of my companion's 44. I ran up the road a little way to head off the deer in case Bill had missed. In a few minutes I heard

twigs snapping in the alders, and I soon saw, not a deer, but a good sized bear waddling along the trail. He was about 8 rods from me when I fired at his shoulder. He fell, and a second bullet between the eyes finished him. Bill had wounded him in the hip with the shot I heard him fire. It was the first bear hung up at Buck Tail camp.

Burrell Ainsworth, Port Leyden, N. Y.

June 28 R. C. Thomas and I left Norfolk, Va., on a canoe in tow of a tug. We were bound for Lake Drummond. The tug dropped us at Deep creek, and we made the rest of the trip by aid of a white ash breeze. The lake is a weird looking body of water, with cypress trees growing here and there for 100 yards from shore. We made for the Western bank. There we found the vines and underbrush so thick it was impossible to enter the woods without cutting our way.

Later, we found an old tramroad and a slash and pitched our tent there. The next morning we hunted for bear but found none. We were told that it is easy to get one in October; they are then feeding in the gum trees and are numerous. We tried fishing, but without success. Getting tired of living on canned stuff we pulled out for home much sooner than we had intended.

J. H. Fisher, Jr., Norfolk, Va.

I protest against hunting deer with shot guns and buckshot. We have a law here against hunting deer with dogs, and we should also prohibit the use of buckshot. It is unsportsmanlike and cowardly. The 2 methods usually go together.

I met many so-called hunters last year looking for deer with shot guns. They would tell of many deer they shot but did not get. They will shoot at a deer 30 rods away, and perhaps put one or 2 shots in it. Then it will get away and they could not get it if they should follow it a week. Many such deer get into swamps and die. A friend told me of a party living in this city who in one season shot and wounded 7 deer, but did not get any of them. Finally he got a rifle and killed a deer just as the season closed. If we could get such people to join the L. A. S. they would see the errors of their ways without laws to make them decent.

L. A. S., No. 1268. Traverse City, Mich.

I am in favor of laws prohibiting spring shooting and the sale of wild game at all times. Our laws are good enough otherwise if enforced, but that is the rub.

I believe more chickens were shot in this country before September 1 than after that date, by pot hunters, farmers, swine, and men who go out early claiming to train their dogs. I know of one farmer in this vicinity who boasted of killing 78 chickens before the season opened. One of our citizens claims to have speared 6 grain sacks of fish in one night and unblushingly called it sport. Near the deserted marsh J. C. French tells about a herd of swine camped last spring. When they broke camp they left lying on the ground a great pile of ducks, not even taking the pains to give them away. They claimed they only wanted the sport.

Captain, Montevideo Gun Club, Montevideo, Minn.

The other day I received a mailing card from the publisher of an alleged sportsmen's journal, asking for my subscription. As they probably will not publish my reply I give it here, verbatim:

You are rightly informed. I am an enthusiastic sportsman and am proud to own the title. In the field, with rifle, rod and gun, at my desk, and in the columns of the journals devoted to outdoor athletics I have done what a man may to uphold the standard of clean sportsmanship. I, therefore, make bold to say that if your magazine ranch has not a hot branding iron for game hogs in its outfit, it is not to my taste, and I have no use for it. I am glad to know that I am one of about 330,000 sportsmen in these United States who are of the same opinion, and the number is growing.

E. L. Tiffany, Wilson, N. Y.

Four years ago I was the only reader of RECREATION here, and the people thought all hunters from the city were game hogs. I loaned the magazine where it would do the most good, and the ranchers now give the game a chance. Thirteen wild geese fed every day within 50 yards of me last summer, and were so tame we could work within 30 yards of them. Their nests were not far away. Game hogs from Wenatchee shot geese here lately, and I am going to do what I can to stop it by posting notices that were sent me by State Game Warden Merrill. May 4th I met a man from Seattle who had been hunting and had a female grouse. I felt like punching him where his brain should have been. He is a lawyer, named Wright, and camped near here all summer.

G. E. Young, Wenatchee, Wash.

I note in RECREATION that Mr. J. D. Morley, of Lake Pleasant, N. Y., recommends as a protective measure that still hunting deer be prohibited and that the open season begin September 1. I trust

no one will be misguided by nor give any serious thought to Mr. Morley's arguments, for with possibly one exception they are ridiculous in the extreme. In my opinion when a man becomes too lazy to do honest still hunting he should keep out of the woods. I also advise the same course for those who shoot or recommend the shooting of deer in warm weather.

J. G. Dillin, Radnor, Pa.

Here is an item from the Cincinnati Commercial Tribune:

Circleville, O.

"William Patton, a young man of this city, was probably fatally injured this afternoon by being shot in the groin. In alighting from a buggy in which he was riding, his gun was discharged, the load passing through his groin and shattering his right hip. This was the second hunting party that was broken up to-day in this vicinity in a similar manner.

"The first accident occurred this morning, when Delano Hunley was instantly killed by a gun, discharged accidentally in the hands of his companion."

This looks to me like another case of "served 'em right." I can not imagine what birds they could be hunting lawfully on February 1. Thos. Peter, Cincinnati, O.

Sunday, August 31, a homing pigeon, with rings on each leg bearing No. 15801J., came to our place and is being taken care of until we can hear from owner.

We have had one of the best squirrel seasons ever known in this part of the State. I had 3 mornings' sport and had my wife and sister-in-law out on the last trip. I killed the limit, which is 10, by 8.30 a. m. and came out of the timber with squirrels barking in all directions.

I killed my 10 squirrels with 11 shots.

I have been a constant reader of your magazine and can not do without it.

O. H. Kirby, Lamartine, Ohio.

Mr. George M. Houghton, traffic manager of the Bangor and Aroostook Railroad, writes me under date of August 1, 1902, as follows:

"I am sorry to announce that one of our trains last week killed an entire family, a moose family, consisting of father, mother and son. Every effort was made to stop our train, but as it was heavy and on a curve it could not be done and all 3 were killed. We are sorry, of course, to have anything of this kind happen, but it was one of the cases that was purely accidental."

What do you think about this? March 15, 1901, I bagged 121 quails in one day's hunt, and killed 8 or 10 more that I failed to find. Had it not been such an awfully windy day no doubt I would have got twice as many. Quails were plentiful and there is no telling how many one of your hogs would have bagged.

Geo. D. Davis, Brownwood, Tex.

ANSWER.

What do I think? I think you are either a liar or a game hog. Most likely the former.—EDITOR.

I send you newspaper clippings telling of the arrest of 3 members of the Audubon Gun club, of this city, charged with cruelty to animals in having shot live pigeons at the trap. Two of the prisoners were discharged. The third was fined $10, which he paid. The fine would have been larger had it not been understood that the defendant would appeal, and thus secure an authoritative ruling on the pigeon law; but he concluded he was well out of it for $10.

Alfred C. Fox, Chicago, Ill.

I did not see half the game in Wyoming last season that I saw in former years. Its winter range has been entirely destroyed by sheep. If the desert North of Big Sandy river could be made a game preserve, elk, deer and antelope could at least hold their own in that part of the State. As it is now, if one wants antelope he can go down there, hide at a water hole and kill all he cares to.

J. B. B., Portland, Conn.

On page 43 of July RECREATION some unknown person using the name of Jasper Smith writes you of my killing 68 coots and old squaws. The story is false from beginning to end. I was out with a party who killed that number, but not one of the ducks spoiled. I have done and shall continue to do all I can to protect the game.

A. Van Wicken, Port Washington, N. Y.

Small game has been abundant here the past 2 or 3 years. Quails are exceedingly plentiful. However, we get but little shooting. The law requires sportsmen to obtain written permission from owners of lands on which they hunt, and most of our farmers refuse permission to all but their friends. E. P. Pettit, Marietta, O.

My experience teaches me that cougars kill more deer than do all other wild animals. They will never be exterminated in this region until each rancher keeps a pack of trained cougar dogs. Lynx, also, do much harm. I have known them to kill full grown deer; but I think this is unusual.

G. S. Weeks, Chesaw, Wash.

FISH AND FISHING.

ALMANAC FOR SALT WATER FISHERMEN.

The following will be found accurate and valuable for the vicinity of New York City:

Kingfish—Barb, Sea-Mink, Whiting. June to September. Haunts: The surf and deep channels of strong tide streams. Baits: Blood worms, shedder crabs and beach crustaceans. Time and tide: Flood, early morning.

Plaice—Fluke, Turbot, Flounder. May 15 to November 30. Haunts: The surf, mouth of tidal streams. Baits: Shedder crabs, killi-fish, sand laut. Time and tide: Ebb, daytime exclusively.

Spanish mackerel—Haunts: The open sea, July to September. Baits: Menhaden, trolling—metal and cedar squids.

Striped Bass—Rock Fish, Green Head. April to November. Haunts: The surf, bays, estuaries and tidal streams. Baits: Blood worms, shedder crabs, Calico crabs, small eels, menhaden. Time and tide. Night, half flood to flood, to half ebb.

The Drums, Red and Black. June to November. Haunts: The surf and mouths of large bays. Bait: Skinner crab. Time and tide: Day, flood.

Blackfish—Tautog, April to November. Haunts: Surf, vicinity of piling and old wrecks in bays. Baits: Sand worm, blood worm, shedder crabs, clams. Time and tide: Daytime, flood.

Lafayette—Spot, Goody, Cape May Goody. August to October. Haunts: Channels of tidal streams. Baits: Shedder crabs, sand worms, clams. Time and Tide: Day and night flood.

Croker—July to October. Haunts: Deep channels of bays. Baits: Shedder crabs, mussels. Time and tide: Day, flood.

Snapper—Young of Blue Fish. August to November. Haunts: Rivers and all tide ways. Baits: Spearing and menhaden; trolling pearl squid. Time and tide: Day, all tides.

Sheepshead—June to October Haunts: Surf and bays, vicinity of old wrecks. Baits: Clams, mussels, shedder crabs. Time and tide: Day, flood only.

New England Whiting—Winter Weak-fish, Frost-fish. November to May. Haunts: The surf. Baits: Sand laut, spearing. Time and tide: Night, flood.

Hake—Ling. October to June. Haunts: Open sea surf, large bays. Baits: Clams, mussels, fish. Time and tide: Day and night, flood.

Weak-fish—Squeteague, Squit. June to October. Haunts: Surf, all tideways. Baits: Shedder crabs, surf mullet, menhaden, ledge mussels, sand laut, shrimp. Time and tide: Day and night, flood preferred.

Blue Fish—Horse Mackerel. June to November 1st. Haunts: Surf, open sea and large bays. Baits: Menhaden, surf mullet and trolling squid. Time and tide: Daytime; not affected by tides.

NOVA SCOTIA SHOULD PROTECT HER SALMON.

Mr. J. G. Sievert, of Halifax, N. S., writes to a local paper a pathetic story of the destruction of salmon in streams of that Province by netters. He says that during July he spent a week fishing for salmon on the Port Medway river and in all that time he saw but one salmon. That he landed, and it had a net scar around its neck, showing it had been in a gill net and had probably escaped by breaking the cord. Mr. Sievert says Port Medway bay and the river itself are full of set nets from end to end and from shore to shore. Dip nets are also used daily at every dam and at every fall on the river, making it almost impossible for the salmon to reach the spawning grounds at the head of the river. It is stated that fish buyers patrol the shores of the bay and the river and buy the salmon as fast as they are pulled out of the nets. When men still living were young it was useless to set nets, for salmon could not be sold. They were so abundant that any man could go to almost any river in Nova Scotia and take out all the fish he wanted within an hour. Now a man fishes a week with a fly and gets one rise. Even the netters scarcely average $1 a day each from the sale of their fish. If the present method of following and killing every salmon that comes into the river be continued a few years, the children of men now living in that Province will not know what a salmon looks like. Mr. Sievert advocates a law limiting the use of nets in any provincial waters to 3 days a week. That would allow the salmon to ascend the river during the remaining 4 days undisturbed and it is safe to say that if such a law were enacted and rigidly enforced, salmon would be abundant in that country for hundreds of years. The editor of the paper referred to speaks thus of Mr. Sievert's letter:

In another column will be found a letter from Mr. J. G. Sievert, on the threatened extermination of the salmon in the rivers of this Province. Mr. Sievert's letter should incite to prompt action not only the sportsmen but the business men of Nova Scotia. That he does not overstate the case in any way will be readily admitted by all who have any knowledge of the subject. Our streams are being rapidly cleared, not only of salmon, but of trout, and the Province is being robbed of one of its chief and most profitable attractions. It is not easy to deal with this matter. There are too many selfish interests involved to make it at all probable that the ruthless destruction now in progress can be stayed without united and strong effort. It is most earnestly to be hoped that such effort will be made without delay. Every man who has influence of any sort should bring it to bear at once if he has the best interests of the Province at heart. It is idle to appeal to the fishermen themselves. Stringent laws must be enacted and adequate provision made for their enforcement if our salmon, so valuable for food, for sport and as an attraction to moneyed visitors, are to be saved from speedy extinction. We commend Mr. Sievert's letter to the attention of the Government and of all concerned.

HAVE DELAWARE BASS CHANGED?

It may not be known to you that the Delaware bass, since their introduction to those waters in 1873, have undergone an anatomical change, proving the doctrine of evolution and making for them a record probably not held by any others of their *genus*. They have grown more symmetrical

and neater. Much of their soggy beefiness has been trained down to the thoroughbred racehorse type, the heaviness of the bones has decreased, the jaws have lost much of their prominence, particularly the under one, and the bony frame of each fin has grown smaller, while the muscles and sinews have been increased in each fin. The notch in the tail has become almost extinct, the head has become more pointed, the forehead's slope has grown more slanting, and a red spot has appeared in each eye, on the edge of the pupil. The iris of the eye is also more brilliant. I have never observed the foregoing characteristics in any bass outside of the Delaware.

I claim that the red spot in the eyes of the Delaware bass renders him just as distinct a type of his species as though his eyes were blue or green. His color, too, has perceptibly changed to brighter hues, finer markings, etc.

I once dressed a 4-pound black bass fresh from the Delaware for a physician stopping at my house. He ordered the eyes removed, for he wanted his cook to bake the bass for him and his city cronies when he got home. I threw the eyes in a large stove from which the red hot ashes had just been raked. I thought they would immediately burn up, but, to my surprise, one of them exploded with a little puff, while the other shriveled to about the size of a buckshot. On taking it out and wiping it I found it had become very hard, had the weight of a pebble of its size, and was a beautiful pearl. Just how this change was brought about I am unable to say. I do not claim, however, that this is a distinctive feature of our Delaware bass.

M. L. Michael, North Watergap, Pa.

GOOD ADVICE TO CLUB MEMBERS.

Here is a copy of a circular issued by the Fish and Game Committee of the Tolland Fish & Game Association, whose preserve is near the Colbrook river, in Connecticut. I earnestly commend the subject matter of this circular to all members of fishing and hunting clubs.

About the 10th of May the water in the Tolland streams will be sufficiently warm and low to insure good fishing. The large brook was heavily stocked last year and promises the largest fish and the best sport the members have ever had at the club. The small lake offers excellent fly fishing for rainbow trout, as a 1½ pound fish was caught there this year. He was put back, so is still there waiting for a fly. The committee urgently requests the members to put back as many fish caught as possible, only reserving a few of the choicest for eating and to take home.

As far as sport is concerned a fish has served its highest purpose when caught, and if returned to the water can serve that purpose again and again, to an increasing extent, as he grows larger. Besides, we share the sport of catching with others and have not decreased our own pleasure to the slightest extent. This ought to be particularly so with rainbow trout as it is the largest fish that furnish the finest sport, and if all the rainbow trout are put back the entire membership will have plenty of good fly fishing throughout the season. Last season a large number of brook trout were thoughtlessly wasted. Many times half the fish caught were not eaten, though cooked; and in a number of instances the fish were left in the creels and spoiled. Good as the fishing will be, this season, it would be far better had the wasted fish been put back. The committee earnestly requests the members to give this matter serious thought and to give their heartiest co-operation in keeping the club streams and lakes well stocked with large fish. Only in this way can the sport spirit in our club be brought to the highest standard.

A MICHIGAN RAZORBACK.

The following clipping was recently sent me by a subscriber:

Niles, Mich.—Considerable excitement has been stirred up among the fishermen of Cass county by a recent catch of large mouth black bass made in LaGrange pond, 5 miles East of Dowagiac, by James Heddon. Mr. Heddon captured 73 bass in a few hours. One of the string weighed 6 pounds, while many of them weighed 3 and 4 pounds. The total weight of the catch was 114 pounds.

This wholesale slaughtering of the bass has started an agitation which may result in presenting a petition to the Legislature at the next session asking for the passage of a law that will prohibit the use of more than one hook on a bait when angling for bass.—Detroit Free Press.

I wrote Mr. Heddon, asking if the report was correct, and he replied:

I did catch 73 of the black beauties within a few hours. Thinking perhaps you would like to use a photograph I am sending you one to-day.

Chas. Heddon, Dowagiac, Mich.

No, I do not care to use the photograph. If you had followed the usual method of fish hogs and had stood beside the string, I should then have been glad to print the picture, in order that decent men might recognize you when they saw you and shun you. The fish are not to be blamed for being photographed, and being dead and hung up they are simply like any other 73 dead bass. It is safe to assume that these fish would average 2 pounds each or more; so it appears you destroyed about 150 pounds of black bass, whereas no gentleman would care to kill more than 25 pounds in a day at the most. I trust the

time may soon come when the Legislature of your State will curb the vicious appetites of such men as you by enacting a law limiting the number of fish any man or beast may take in a day.—EDITOR.

A FISH HOG AND A LIAR.

I enclose a clipping from our "Review" which may interest you. I admire your stand in regard to game protection and preservation, and your knifing of game hogs. RECREATION is all right and improves with each issue. I especially enjoy the letters of experience of your various sportsmen correspondents.

J. E. Bates, Spokane, Wash.

Here is the clipping:

John Pelzel, a fisherman of Medical lake, who insisted on catching bass out of season, was fined $10 and costs by Justice Kennan. Pelzel, with whom fishing is a business, fought the case, and had Lawyer L. J. Birdseye defend him. It developed in the testimony that a farmer named Grubb owned the land around Grubb lake, a body of water covering 30 acres and having neither inlet nor outlet. Grubb stocked it with bass and they multiplied rapidly. Pelzel bought 40 acres from Grubb, which contained 3 acres of the lake, and speared fish regularly, in season and out, until he nearly exhausted the preserve. He was warned not to fish during the closed season by State Senator Stanley Hallett, of Medical lake. Pelzel, however, had a letter written to the State Fish Commissioner setting forth that he was the owner of all the land around the lake, and asking whether he had the right to fish. The Commissioner replied by quoting a letter from the Attorney-General to the effect that under such circumstances he would have a right to fish. Pelzel accordingly kept on fishing until arrested on complaint of Game Warden Uhlig. His lawyer announced that he would appeal.

Thus it seems that Pelzel is not only a fish hog but a liar as well; that whereas he owns only 3 acres of lake, he made a false claim to the fish commissioner that he owned it all, in order to obtain a semblance of authority to slaughter fish in close season. It is to be hoped the higher court to which his case has been carried will soak him and that his lawyer will charge him at least $500 for handling the case.

Mr. Uhlig, who made the arrest, is a member of the L. A. S.—EDITOR.

FISHING IN ALASKA.

Even in the country, where trout abound, I have seen evidence of the use of dynamite. This was the work of white men, for Indians will not use the villainous stuff. Imagine using dynamite where one can catch 100 pounds of trout in 2 or 3 hours with hook and bait!

A friend and I went this summer to a creek not far from here to salt down some trout for winter use. We each took a butter firkin to put our fish in, each firkin holding 100 pounds or thereabout. In 3 hours we both had enough fish to fill our firkins. Mind you, we put these up for our own use for food, for neither of us is on easy street and we have to look after getting our own food supplies through hard work.

On our return journey we had to wait an hour for the tide at the head of Douglas island. To while away the time we set our halibut line, baited with 2 small trout. As we were making the line fast to a spring pole on shore something struck it. We paid out more line and it immediately tightened. Then we struck hard and went out with the boat to take in the fish. It was too big to get into our little skiffs, so we towed our catch ashore and killed it with a club. The halibut weighed 250 pounds; but that is nothing uncommon here, for I saw one last winter that weighed 420 pounds.

In a country so prolific in game and fish, is there any excuse for slaughtering fish by dynamite or for shooting does and fawns?

Frank Dodson, Douglas, Alaska.

BEAMAN THINKS HE IS A SPORTSMAN.

D. C. Beaman, of Denver, who is now at Avalon, Santa Catalina Island, Cal., has sent George Tritch a photograph of his record catch a few days ago. He says of it:

"I beat the record catch for the season yesterday, taking 6 yellowtails, 3 bonita, 15 barracuda, 3 rock bass and 1 shark—28 in all; weight, 265 pounds. Young, of St. Louis, came next with 25, but he ran out of bait and I gave him half a dozen smelts. Then I ran out of bait and quit in a school of yellowtails which were making the water boil for acres all about my boat. But for giving him the half dozen I could have increased my catch 5 or 6 more.

"Yellowtails run about 3 feet long and the largest I caught weighed 29 pounds.

"It takes about 20 minutes to land a yellowtail or a bonita, and if anyone thinks landing 28 of these fish isn't a good day's work, he may try it."—California Paper.

Yet Beaman poses as a sportsman and a game and fish protector! A prominent Denver man told me, a year ago, he thought the city had more game and fish hogs to the square inch than any other in the country. If any evidence were needed as to the truth of this, here's a block of it.—EDITOR.

NIBBLES.

Will someone tell me, through RECREATION, of an artificial bait that will take the speckled or calico bass found in the lakes of Ohio and Pennsylvania. These fish are truly game. They are beautifully mottled with dark green, almost black, irregular spots and weigh ⅛ to ½ pound. I have had good success with minnows about an inch long, but they are hard to obtain. Have also tried a small rubber minnow, at which they would strike savagely, but I could only succeed in hooking about one in a dozen. I think a fly of some kind would be successful. I have angled a great deal

for blue gills, and I use the common black field cricket for bait. They can be found on pasture lands under sticks, stones or anything that affords cover.

F. L. Caris, Meadville, Pa.

It was reported to me that Cleve Richardson and Herman Bennett, of Gorham, N. H., caught 260 trout in Peabody river. I wrote these men, asking if the statement were true, and received the following letter:

The report you received was correct. We caught the trout out of a stream known as Nineteen Mile brook. I have been out twice since then, once fishing Moose river about half a mile, catching 27 trout, and the other time fishing Moose brook one mile and catching 55.

C. L. Richardson, Gorham, N. H.

It is not necessary to use much space in talking to you. You are a disgrace to your community and should be run out of it.—EDITOR.

I was one of a party visiting Star island, St. Clair flats, for a few days' recreation. June 1 we procured guides and went to the fishing grounds. Fishing not being to our taste, we started on an exploring expedition through the passages between the numerous islands. We went still West of West passage, against the advice of the owner of the launch which we had rented. We saw 2 natives in duck boats spear at least 25 black bass off their spawning beds in less than 30 minutes. Our boatman said that in case a game warden showed up, those fellows would take to the tall weeds ashore and escape. He said, also, that hotel people bought the fish, paying 8 cents a pound for speared fish and 10 for others.

E. L. Barton, Gibsonburg, O.

Can someone advise me where I can procure an artificial bait that can be used successfully in taking blue and channel catfish? If there be such a bait, what is it?

D. Smythe, Newark, Mo.

ANSWER.

I regret I do not know of any artificial bait that can be used successfully in taking catfish. Blue and channel catfish are bottom, or deep water, feeders almost entirely, and, as a rule, the best bait for them is live minnows or worms. They are frequently taken with fresh beef or salt pork.—EDITOR.

In the New York Times of July 3 Mr. John F. Doyle, of New York, gives some instances of catches other than fishes while angling with the fly, suggested by an account in the preceding issue of the hooking of an owl. Mr. Doyle mentions the capture of a bullhead on a fly, and is not aware of similar occurrences. I can add a small item. Two years ago I took a catfish of moderate size on a red ibis in the Potomac river at Washington. Possibly inquiry would result in accounts of similar experiences.

M. C. Marsh, Washington, D. C.

I wish you would suggest in RECREATION the stocking of the lower portions of our large trout streams with European grayling and rainbow trout. The rainbows would thrive, and the characters of the parts of streams referred to would suit grayling exactly. Why should we have only a short period of good fly fishing in this country? We should have it during all the more quiet months.

Theodore Gordon, West Haverstraw, N. Y.

There are 2 men near Concord, N. H., who are better posted on the fish and game laws than before. They recently went into court at Stoddard and parted with $155 and 31 short brook trout. For each short trout found in their possession they were fined $5. The fishermen gave their names as M. Cheney and William Cram.

They will hereafter fish for big trout exclusively.

Clinton, Ia.—Arb McDonald dropped a stick of dynamite from a boat into the Maquoketa river for the purpose of killing fish. The dynamite exploded directly under the boat and McDonald was blown to atoms. John Ralston and Peter McCabe, who were in the boat with McDonald, had narrow escapes. They will have to stand trial for violating the game laws.

Thus another lawbreaker meets a well deserved fate.—EDITOR.

With a Shakespeare rod and reel I have improved from 60 or 75 feet to over 100 feet in bait casting. Can cast that distance every time without any trouble whatever. The Kentucky and the other high grade reels are good but Shakespease Standard and Professional are equally good.

H. B. Landgraf, Washington, D. C.

Game Warden George Story came here recently and captured 2 fish hogs, 100 feet of seine and 150 pounds of fish. Mr. Story is doing excellent work, and the good results are already seen.

Wm. Tubb, Emerson, Ia.

Will you please ask your readers through RECREATION what food they find most suitable for catfish, black bass, and pike when confined in separate ponds?

H. L. DeWitt, Riverside, Pa.

GUNS AND AMMUNITION.

Anybody can keep shooting all day, but it takes a gentleman to quit when he gets enough.

FACTS ABOUT SMOKELESS POWDERS.

Montgomery, Ala.

Editor RECREATION:

M. E. B., in August RECREATION, asks why the so-called shot gun smokeless powder can not be used in a rifle, and why smokeless powder can not be used in a muzzle loader. If M. E. B. will place a small quantity of black powder on a piece of board and ignite it with a match, he will observe that it burns with a flash and a puff. The same experiment with smokeless powder will give an entirely different result. The smokeless powder will burn fiercely, with intense heat, for a much greater time than the black powder. Therefore we say smokeless powder is slow burning. When powder is ignited in a confined space, the gas evolved can not escape, and it causes pressure. All powders burn more rapidly the greater the pressure, but smokeless powder increases its rate of burning much faster than does black powder. Therefore under great pressure smokeless powder burns faster and acts more violently than black powder. In a shot gun the powder is confined until the pressure has risen to the point where it is able to force the charge of shot and wads out of the shell, unfolding the crimp of the shell at the same time. After this the charge of shot passes through the smooth barrel with comparatively little resistance. In a rifle, the powder is confined until the bullet can be forced through the barrel, and the pressure necessary to force the metal of the bullet into the grooves of the rifle is naturally much greater than that required to move the shot in a shot gun. This is especially true when long jacketed bullets are used in a small bore rifle. Shot gun powder is so made by the manufacturer that it burns at the proper rate when confined in a shot gun. If subjected to the greater confinement of a rifle, the pressure, being greater before the bullet moves, will cause the powder to burn too fast, and the pressure will increase. This increased pressure will increase the rate of burning, and the pressure will again run up; to such a degree that damage to the rifle and its operator is almost certain to occur.

Rifle smokeless powder is made to burn at the proper rate in a rifle, and can not develop its power in the lesser degree of confinement of the shot gun. The same explanation holds for shot gun smokeless powder in a muzzle loader, where the absence of the crimped shell causes the confinement to be too slight even for shot gun smokeless powder. Therefore the quick burning black powder will give better results.

For every gun each different kind of bullet will require a powder load different either in kind or quantity of powder to produce the best possible result in each case. This is why so many riflemen experiment with their ammunition, and why their conclusions vary so widely. There is one peculiarity of smokeless powder that is responsible for many a disaster to experimenters, and that is the tremendous increase of pressure developed for a comparatively small increase in the powder charge. It can not be too strongly urged that the greatest charge of smokeless powder recommended by the makers for a given gun must never be exceeded. By means of extra strong testing barrels these makers have determined the greatest safe charge, and they know what they are talking about. Do not put your guess up against their knowledge, or something may drop.

The question is sometimes asked, why smokeless powder is better than black. Apart from its greater cleanliness and the absence of smoke, it will actually do more work, for it gives off more gas at a much greater temperature. The value of the extra heat will be appreciated if you place a tightly corked empty and dry bottle in the fire. In a few minutes the expansion of the air in the bottle will blow the cork out with a pop. Just so the gas from the powder will expand more the hotter it is.

In a high power rifle black powder can not give pressure so high as smokeless, for the space occupied by the gases increases as the bullet moves forward, and the powder can not burn fast enough to keep the pressure up. Under great pressure smokeless powder burns rapidly; hence it can keep up the pressure better than black powder can.

In some guns the pressure from black powder runs higher than the pressure from smokeless, yet the velocity of the shot is less with the black powder. This is the case with shot guns. The reason is that the work done in pushing the shot through the barrel and giving it a velocity is measured by the force exerted, multiplied by the distance over which the force acts. Thus the work done in lifting one pound 2 feet is exactly the same as that done in lifting 2 pounds one foot. The higher pressure of the black powder, acting through only a part of the length of the barrel, can really do less work and pro-

duce less velocity than the lower pressure of the smokeless, which, being better sustained, works over a longer path.

This again explains why a gun made for black powder is not always safe to use with the lower pressure of smokeless powder. The gun is made thick at the breech for the high pressure of black powder, and the walls of the barrel near the muzzle are thin because the pressure has fallen off by the time the shot reaches those parts; whereas the well sustained pressure of smokeless powder, while perfectly safe at the breech, may burst the outer parts of the barrel. Modern guns are made safe for both kinds of powder.

The statement is sometimes made that black powder should be used in long barrels, and nitro powder in short ones. This is an error. The shorter the barrel, the quicker must the charge of powder be. A special grade of smokeless powder must be used for short barrels, such as revolvers. My early efforts to use ordinary smokeless powder in revolvers were flat failures.

I have been asked why shot scattered, and why a choke bore scatters it less than a cylinder. There are 2 causes for the scattering of shot. One is that the air in front of the charge as it issues from the muzzle is compressed by the onward rush of the charge, and entering among the shot pellets this compressed air forces them apart. The other cause is the pressure of the powder gases acting on the rear wad for a short time after the charge has left the muzzle. At this time the charge of shot has not the lateral support of the walls of the barrel, hence this pressure forces the rearmost shot pellets in among the foremost, thus wedging them apart. In a choke bore, the diameter of the barrel decreases toward the muzzle. Therefore the diameter of the shot charge must decrease as the charge moves forward to the muzzle; but as the volume of the charge remains the same, it is evident that the length of the charge must increase. In other words, the shot in front must move faster than those in the rear to gain the required distance. Therefore, when the charge emerges from the muzzle, the rearmost shot pellets must gain on the foremost under the action of the blast of powder gas from the muzzle, before the wedging action above described can take place. Hence this wedging is reduced, and the shot do not spread so much as in a cylinder gun.

I have been told that soft shot should be used with black powder, and chilled, or hardened, shot with smokeless. This is wrong. Chilled shot is always to be preferred, especially with black powder, whose high pressure, suddenly applied, is apt to crush and deform soft shot. The more gradual application of pressure with smokeless powder is less apt to deform the shot, particularly when elastic felt wads are used between powder and shot. It also gives the easier recoil which makes smokeless powder so pleasant to shoot.

R. R. Raymond,
1st Lieut., Corps of Engineers, U. S. A.

THE ALL AROUND SAVAGE.

San Francisco, Cal.

Editor RECREATION:

During the past 16 years I have shot many different makes and calibers of rifles, among them Remingtons, Ballards, Colts, Marlins (alas!), Winchesters, etc. I am not narrow minded enough to say that the Savage is absolutely the best shooting and working arm made or better than the Winchester. Each stands as the highest exponent of its respective class; the Winchester as the special gun, the Savage as the all around gun.

I pick the Winchester for comparison, because I believe it the only gun which really competes with the Savage; at any rate, that is the case here. If you want to hunt large game and that only, buy a 25-35, 30-30, .303, or 30-40 of any standard make, except Marlin, and you will find it reliable and good. For all around shooting, reliability, beauty, style and symmetry give me the Savage. It is equally good for rabbits, birds or bears. If that is the kind of gun you desire, buy a Savage and you will make no mistake.

If used while fresh, I find the Savage shells stand reloading with smokeless about 3 times; but I usually reload with black powder, which I find makes a cartridge about equal to the 32-40 in power, and allows longer use of shells. The best small load is the small steel or metal covered bullet with 10 grains smokeless. This is a wicked little cartridge and about equals the 32-20.

The wire wound or paper patched lead bullet with 13 grain smokeless is a fine cartridge for jack rabbits and targets at 200 yards or more. For birds I use a regular 32 caliber lead pistol bullet and 3 grains of smokeless. The Savage .303 is practically 32 caliber, and the solid head bullet with black powder makes a fine goose load. The .303 is not so powerful as the 30-40, but it is powerful enough and will kill as far as one can see to shoot. According to my experience the penetration of the .303 soft nose Savage is about 10 inches in pine.

In using the Savage for all around shooting, I find an ivory head front and sporting rear sight are best. The Lyman is good when shooting one kind of load. I at first used a Lyman combination rear sight, but found it troublesome. Generally

speaking, up to about 60 yards my gun seems to shoot all the different cartridges with about the same head. However, with an open rear sight one soon learns to make allowances. On account of the peculiar shape of the Savage stock, all sights will not fit. When ordering always specify "for the Savage" and you will save trouble.

Shooting alongside a Krag-Jorgensen regular army cartridge, I find that at 600 yards the Savage, with regular cartridge, shoots just as well, but with a slightly greater elevation. Beyond that distance the Krag shoots with the greater ease and accuracy. Shooting Savage mushroom bullets into a bank of earth at 20 yards, the bullets seem to pulverize, as I can never find them; while shooting under same conditions with the Krag regular metal cased, I usually find the lead filling in a lump and separated from the covering.

If the gun is cleaned right after using no trouble will be experienced in keeping the bore bright.

About the only fault I find with the Savage is that the stock, where it fits the receiver, is too light, and lacks needed strength. After using other rifles, it takes one some time to become accustomed to the hammerless feature of the Savage.

A point of note to a prospective buyer is the uniform courtesy of the manufacturers. About a month after I bought my rifle I took it to the hills, where I had the misfortune to break the automatic cutoff and ejector. I took the broken parts out and used the gun as a single shot. Then I sent the broken parts to the factory with a request that they be replaced. In a short time I received new parts, postage prepaid, and a letter regretting the occurrence, and explaining it to have been caused by a flaw.

In hunting I have found the Savage the lightest and best balanced repeater I have ever used. The Savage carbine, 20 or 22 inch, is an ideal gun for woods hunting and horseback. It will shoot as well as the regular gun, but I do not think it so good a long range weapon, on account of the sights being so close together.

In regard to the soft point bullet flying to pieces on contact with a skull: Recently, while hunting, a farmer requested me to kill a horse which had been hopelessly injured. Standing about 30 yards away, I aimed at the horse's forehead, a little below the center line and ranging upward. At the report the horse fell, killed instantly.

I have nothing against the Marlin rifle except its faulty action; if that was perfected it would rank with standard makes. It is a pity so good a gun fell into such stubborn hands. Marlin is at least consistent. He refuses to advertise in RECREATION because some of its readers have asked him to, and refuses to remedy a known defect in his guns because the public asks him to. In both cases he loses.

Jas. Gilmaker.

A FORMIDABLE WEAPON.

The experience of Mr. E. E. Van Dyke in the use of a 22 caliber rifle for hunting, as given in February RECREATION, leads me to relate a little of my own experience along the same line. For many years I had been an advocate of the larger caliber hunting rifles for big, dangerous game, supposing in my simplicity that they would be more effective in stopping power, owing to their increased weight of powder and lead. However, after an exhaustive series of experiments with nearly all makes and calibers of cartridges, both smokeless and black powder, and various lengths of barrels, I found that the most effective for all purposes, especially for the hunting of moose or grizzly bears, is the 22 short, rim fire. This seems to possess decided advantage over every other size in "get there" qualities, and in stopping large game. I found, also, that the barrel could be materially shortened, one of about 10 inches giving the best results. With a 10-inch barrel using the above ammunition, the average penetration is 36 inches in seasoned oak planks. Indeed, some of the bullets in addition passed through an iron plate, back of the last plank, ½ inch in thickness. A rifle of this description is the most formidable hunting weapon that can be made, and is abundantly able to stop any animal that roams the American or African forests. Armed with one you need not be afraid to meet, as the late Seth Green used to say, "anything that wears hair."

I took such a one with me on my last trip to New Brunswick, for moose. One rainy day in camp on the shore of Wishluck lake, I saw a moose come down to the opposite shore to drink. The lake at that point is about ¼ of a mile across. Ed Raynor, my guide, said, "Try him." I did so, firing just as the moose was raising his head from the water. He fell in his tracks as if a thunderbolt had hit him. Taking the boat we went across and found that the little bullet had not only smashed the skull into atoms, but had penetrated some 18 inches along the pith of the backbone.

Again, returning to my cabin one evening in the Cœur-d'Alene mountains of Idaho, I came suddenly upon 4 immense silvertips in a rocky gorge where I had no chance to retreat and they all charged me at once. I was under the disadvantage of having to reload after every shot, for I had my 22 pistol, single shot. Still I managed to lay them all out before they reached me, as only one shot was required for each. Sev-

eral of the guides declared they had never seen so effective a weapon, and each of them ordered a similar one at once.

To sum up its advantages: The ammunition is light to carry, and cheap. It can be found in almost any gun store. Be sure to call for the 22 short, rim fire. The rifle with 6 or 10-inch barrel takes but little room. It can be carried in a side pocket as easily as a toothbrush. A repeater is unnecessary, as a second shot is rarely needed. These advantages are so decided and manifest that I understand anyone who should be seen out after big game with the old style Savage or Winchester, with their .303 and 30-30 calibers, would be laughed at by the guides. Several of the European nations are considering the desirability of discarding their present weapons and adopting an arm using the 22 short rim fire cartridge.

D. L. Bodge, Middle Falls, N. Y.

MORE PRAISE FOR THE TELESCOPE.

I bought a telescope sight several years ago because a defect of my right eye had made rifle shooting almost impossible to me. I selected a Malcolm No. 2 Imperial and found I could see as well to shoot with its aid as ever before. The field of this instrument is not particularly large, but the power is excellent.

For a quick running shot a good sight mounted on top of the telescope is, I believe, more practical and satisfactory than the telescope itself, whether the field be large or small. With this arrangement a narrower field can be used, with consequent higher power, which I consider one of the essentials to accurate shooting.

My first experience with the 'scope in actual hunting was during a trip in Northern Wyoming about 2 years ago. I scarcely claim to be even an amateur sportsman, and when I started on that trip I had never seen a live wild deer. Our camping and traveling was of the roughest kind, and my telescope gun was as easily taken care of as any other, notwitnstanding that many hunters claim these guns are not practical on a hard trip such as ours.

Though fortune, as all hunters know, is a fickle dame, she certainly smiled propitiously on me on that trip. My first game was 2 buck mule deer, 6 and 8 prongs respectively, at distances of 175 and 225 yards in the breaks of the Little Powder river. My only honor in the feat was in not getting buck fever, for they were so big I could not have missed them.

My best practical test of the 'scope was one day, when, having jumped a deer in a rough section, it stopped at a distance of 125 yards in a thicket of scrub oak. So dense was the cover that with the naked eye I was unable to see any sign of him. By the aid of the telescope I detected a patch of hair in the brush, at which I fired. I found my deer, a fine 4 pronged brush buck, dead, shot through the shoulder. At another time, in a dim light, while on an elevation scanning the valley below, my companion detected, at a distance of about 300 yards, the faint outlines of the hind part of a deer in a clump of quaking asp. My first shot broke the deer's hind leg; a second finished him. One other excellent shot I made was shooting off the head of a grouse at a distance of 15 steps, after sundown, in a dim light. I tell of this merely to show what can be done with a high power 'scope in a dim light.

I am but an indifferent shot, yet on that trip I killed everything I shot at, and I attribute my successes mainly to my telescope sight.

C. P. Swarm, Oakland, Ia.

QUESTIONS THE SKILL OF THE FATHERS.

In March RECREATION Old Hunter, Glen Ellen, Cal., made a statement which I can not refrain from taking exception to, despite the fact that I am scarcely 1-3 as old as he. I refer to that part of his article in which he says that in old days any fair shot could put a second bullet on top of the first at 100 yards.

There are only 3 ways in which that could have been done: by using a telescope sight; by being able with the naked eye to sight on the bullet hole at 100 yards; by sighting on the center of a small bullseye.

The first of these need not be considered; there were no 'scopes in those days.

As to the second, I do not believe there is, or ever was, a man who could sight on a bullet hole at 100 yards, as but few can see it at all at that distance even under the most favorable circumstances.

When it comes to the last way it could be done only by the most exact method of loading. The old style of loading, according to Old Hunter's description, was anything else, the powder being measured by holding the bullet in the palm of the hand and pouring from the flask a quantity sufficient to cover the ball. By this method there could not but be some variation in the quantity of powder, granting that the bullets were all the same size, which they were not, as this is not true of bullets cast in the best modern moulds until after swaging. Add to this the fact that few men indeed can use anything like the same pressure each time in ramming home a ball, and it can readily be seen that the above feat must have been extremely difficult and rarely accomplished.

I do not mean to insinuate that the rifleman with the muzzle loader was not an expert, but it seems the fashion nowadays to magnify the achievements of our forefathers and to belittle those of our own day.

There are always plenty of unthinking ones who swallow it all and sigh longingly for the good old days.

No doubt there was formerly a larger percentage of good shots than now, due partly to the fact that nearly everyone was more or less dependent on his rifle for food and protection, and partly because in those days ammunition was scarce and expensive. Nevertheless, there are riflemen to-day, and plenty of them, too, who are the equals of any of the old timers, while there are some who can perform feats with the rifle which none of the old school could have hoped to equal.

W. H. Deaver, Dayton, O.

WHAT SOME DEALERS SAY OF MARLINS.

While hunting in Northern Minnesota last fall, I met many people who had used Marlin rifles and discarded them.

I did not take a gun with me, intending to buy one at my destination. In the first store I visited I found a goodly number of Winchesters and other standard guns, but not a single Marlin. I asked the dealer why he did not keep the latter. He said he had used one himself and since then wanted nothing to do with them. He added that he would rather meet a catamount with a crowbar than with a Marlin rifle.

I entered another gun store and not seeing any Marlins there either, I asked for them. The proprietor said he formerly kept them in stock, but had had so much complaint about them that he had quit selling them.

I met a man later in the day who had an almost new Marlin which he offered to sell to me for a price that would have been exceedingly reasonable for any other rifle. I declined to buy, but asked why he wanted to sell. He told me he had seen a large buck that morning at which he had fired and missed. The buck, not knowing where the shot had come from, ran within 100 feet of him and stopped. He worked the lever to throw in another cartridge, but the empty shell clogged in the gun. He broke both blades of his pocket knife in trying to get it out, while the buck was still standing there. He left the deer and went home, and had to take the gun apart to get the shell out. I met him a few days later, and he told me he had exchanged the gun for a plug of tobacco, and had bought a Savage. I heard many similar stories. I saw a man exchange a Marlin 40-65 for a Flobert *22*.

W. A. Mason, Radcliffe, Ia.

NITRO GUNS IN THE FAR NORTH.

While in the far North I heard of several 30-30's, both Marlin and Winchester, bursting in cold weather. I did not see the guns nor the men who were using them, so do not know the causes. I think there must have been some obstruction in the barrel, if nothing more than some hard, frozen grease; though I do not know whether that would cause so much mischief or not. Some also claimed that smokeless rifles would miss fire in cold weather, and blamed the nitro powder. I never heard of a case where the powder failed to do its work if the primer exploded. As far as I could find out, all trouble was caused by too much oil on the guns, that froze and hindered the action of the firing pin. I saw as much of that trouble with black powder guns as with smokeless. I used a 30-40, and all through the cold season kept it perfectly free from grease, oil and moisture. It never failed to work satisfactorily in all kinds of weather.

E. L. Stevenson, Alhambra, Cal.

DETERIORATION OF NITRO POWDERS.

I have experimented with nearly all the nitro powders. One that I know nothing of is Ballistite. All smokeless compounds I have used have invariably lost strength with age. Many gunners, for reasons of economy, prefer to buy loaded shells in case lots, even though they may not have the opportunity of firing 100 shots a year. To such the keeping quality of a powder is of prime importance and semi-smokeless will not disappoint them.

A friend, in November, 1899, used a certain dense nitro in chicken shooting, and was so delighted with the phenomenal kills made that he put aside the remaining cartridges of the lot and kept them until the next fall. By that time the powder had deteriorated to such an extent that the killing power of the cartridges was practically *nil,* though it was a highly glazed powder guaranteed against the influence of everything supposed to be detrimental to powders in general.

While my friend was away on that hunt I was shooting quails with semi-smokeless loads procured early in 1899, side by side with others sent from the factory 18 months later. I could not distinguish the slightest difference in their range penetration.

If this powder was smokeless it would be perfect. In consideration of its many good qualities, I, for one, shall continue its use both at the trap and in the field, in spite of its trifling smoke.

John Nordstrom, Gothenburg, Neb.

SMALL SHOT.

I get your magazine from our local newsdealer every month and read it with pleasure. I should like to be informed through

RECREATION the difference between the .303, a .305 and a 30-30.

A. D. L., San Diego, Cal.

ANSWER.

The term 30-30 means that the bore of the rifle is 30-100 of an inch in diameter and that the cartridge carries 30 grains of smokeless powder. The term .303 means that the bore of the rifle is .303-1000 of an inch in diameter, which is practically a distinction without a difference.

I do not recall having heard of anyone's making a .305 rifle, but it would simply mean that the bore was 2-1000 of an inch larger than that of the .303.—EDITOR.

Many sportsmen seem prejudiced against every gun but their own. It is natural for a man to brag about his gun if he has never seen or handled another model. I have used several different makes, and now have a 12 gauge, 8½ pounds hammerless Parker, P. H. grade. I began to hunt in '87, but never had much luck killing wild turkeys until '97 when I bought my Parker. Since then I have killed 11 turkeys with 14 shots. I used 4 drams of Dupont or Laflin & Rand black powder and 1 ounce of No. 3 or 4 shot. For even pattern, good penetration, dead kills, and no cripples, the Parker is second to none.

W. H. Snyder, Winfield, Pa.

I have a 30-30 Marlin that has been cut down to a 22 inch barrel. It shoots well up to 125 yards, but will not hold up beyond that, and is no good for deer. I shot a buck through both shoulders, yet he traveled over a mile and I had to shoot him again. Several other deer I have had to follow and shoot the second time, when I know the old 40-65 Winchester would have stopped them in their tracks. Will someone tell me if the fault is in the short barrel, or are all 30-30's the same? If they are, the 40-65 is good enough for me.

Jno. C. D vis, Etna, Wash.

Why can not nitro powder be used in any rifle? Is it because black powder guns are not strong enough to stand the pressure, or because of their slower twist? If I use just enough smokeless in my 32-40 Stevens to give the same velocity as the standard charge of black powder, why should it be more dangerous to use? And why should it not give the same trajectory and penetration? What is meant by a false muzzle on a rifle?

M. Cuchman, Belvidere, Ill.

After using guns of all gauges from 8 to 20, I pin my faith to the full choked 16 bore. A man must be a fair shot to get game with that gun as it shoots extremely close. but when a bird drops it is almost invariably a clean kill. I never use shot larger than 6's. In rifles I prefer the 30-30 Winchester carbine, as it is good for either a rabbit or a bear.

F. Lehman, Sergt. Co. I, 21st Infantry,
Fort Douglas, Utah.

Cripple Creek, Col.

Peters Cartridge Co.,
Cincinnati, Ohio:

Dear Sirs:—I have used Peters' ammunition for years and there is none better, but your stand against RECREATION is uncalled for and unfair. I for one shall select another make of cartridges than yours hereafter.

Yours truly, S. T. Stevens,
Member Gold Belt Rifle Club.

I notice your correspondents chiefly praise Laflin & Rand and Dupont among smokeless powders. I have used both and they are certainly good; but I prefer Blue Ribbon smokeless. It is true the manufacturers do not advertise it in RECREATION. I think they make a mistake in not doing so; but, all the same, I consider it the best powder made.

Old Sportsman, Noyan, Que.

In answer to L. O. Ingalls: My favorite fox load for a 12 gauge is 3 drams Dupont nitro powder with 1 ounce No. 4 chilled shot.

In answer to Nimrod: My experience has been that a 30 inch barrel will shoot 1-3 stronger than a 28 inch, for the reason that the longer powder is confined the more force it has.

L. B. H., North Rome, Pa.

The story in January RECREATION entitled "A Day in the Laurentian Mountains" is good. I do not think, however, it was sportsmanlike to carry a combination shot gun and rifle, with one barrel shooting an explosive bullet and the other buckshot, on a deer range.

A. Kennedy, Missoula, Mont.

My brother owns a 32-20 Winchester rifle. One day I borrowed it and went squirrel hunting. I shot at a gray and missed the first shot. I pumped up another cartridge but it jammed and I worked about 2 hours before I got it out. Why did this rifle jam?

G. Condor, Harwinton, Conn.

RECREATION is a good one and well worth $1 a dozen. What we want is a law prohibiting the use of all fire arms save of Marlin make. Then game will swarm. Keep your hogs squealing, wring their noses to stop them from rooting.

R. Gilbert, Salem, Ore.

NATURAL HISTORY.

When a bird or a wild animal is killed, that is the end of it. If photographed, it may still live and its educational and scientific value is multiplied indefinitely.

FOUR NEW APES.

W. T. HORNADAY.

Last summer the primates' house in the Zoological Park received a valuable consignment of apes, baboons and monkeys. They came from Hamburg, in the "Graf Waldersee," from Carl Hagenbeck. There were 3 orang-utans, one chimpanzee, 2 drill baboons, 3 lemurs, and one rare African monkey. A young gorilla that actually reached Hamburg for the Zoological Society, and was to have come in this shipment, died 2 days before the vessel sailed; and the Zoological Park people were greatly disappointed. This creature was worth $1,500.

The star attractions of the late arrivals are a full grown female orang-utan and a lively nursing baby. The mother is big, brown, solemn faced, and as plain looking as the laws of Nature ever permit in an orang. She stands 42 inches in height, has a spread of arms 6 feet 2 inches, and her foot is 11½ inches long. Her teeth have not been brushed since childhood, and the acid fruits of Borneo have stained them to the color of an ancient meerschaum. Her skin is about the color of old mahogany, and her hair is the reddest on record. This specimen and her interesting infant were caught in Borneo 9 months ago, when the latter was a helpless little creature about 3 months old. Their capture was effected by cutting down the low tree in which they had taken refuge, and built a nest for the night. Usually orangs that are captured when full grown are so savage and intractable they resist captivity fiercely, and die in a short time. Sikey, however, has more sense than falls to the portion of the average wild orang. Instead of fighting the inevitable, she wisely elected to survive, and train up her infant, Dohong, in the way he should go. Although not yet tame and obedient, or ready to do stunts, she realizes that her keepers are her friends, and that even curators are worthy of limited toleration. She takes her cups of tea gratefully and her rice and bananas as an Englishman takes his pleasures, sadly. When in doubt, she reaches out a long, hairy arm, and gathers little Dohong to her breast. It is droll to see her reach out magnificent distances and either help the little fellow to climb faster, or haul him up by one arm to the hurricane deck of her sleeping box. He is an obedient chap, and has all the points of a thoroughbred. Beyond doubt, this mother and child will prove of great interest to the thousands of children now visiting the Park.

The Professor is a male orang-utan about 6 years old, and nearly as large as Sikey. He is full of suspicion, and at present elects to be friendly with no one. Occasionally his manner becomes truculent, and he threatens to bite his keeper. Eventually, however, he will calm down, and act properly.

The chimpanzee is a black haired, pink faced infant about 18 inches high, and her name is Polly. Coming across the Atlantic 3 of the apes caught severe colds, and arrived coughing. Already, however, the mild and even temperature of the primates' house has had a marked effect on the animals, their coughing has ceased altogether, and they show general improvement. Being closely confined, the trip was tiresome to the large orang-utans, and they greatly enjoy the freedom of the big cages in which they now live.

A few days later 5 sea lions arrived from Santa Barbara, California, and were set free in the sea lion pool, near the reptile house. The most interesting specimen of the lot is a squalling baby about 20 inches long, which was born on the dock at Santa Barbara. The little barbarian, or, to be more exact, Santa Barbarian, has fared well, and is fat and lusty. Moreover, it has plenty of stamina, and at times rules its mother despotically.

The Park is now well stocked with wild babies, of at least 25 different kinds.

Sikey has since died of tuberculosis.

THE SEA OTTER OF WASHINGTON.

CHARLES M'INTYRE.

The sea otter of the Northern Pacific is fast becoming extinct. Twenty years ago many hunters, scattered along 100 miles of coast, lived entirely on the income derived from the sale of otter skins. The shore country was then practically uninhabited save by Indians; to-day it contains many cities and towns. In all Western Washington there is no good timber or agricultural land unclaimed, save in the Indian reservations which are being gradually opened for settlement.

The destruction of the otter on that coast began about 50 years ago, when Ed Huggins, an old Hudson's bay fur dealer, came into the region to trade with the Indians, giving them flintlock muskets in exchange for furs. He also bought for cash from the few white hunters in the country.

In those days otters were comparatively unwary, and were shot with muzzle loading rifles at 50 to 100 yards. A hunter would kill 5 to 20 in a season, leaving the coast

in October and going to Portland or Olympia to spend his pile, and returning in the spring.

About 1873 Harry Weatherald and Steve Grover appeared on the scene. Using improved rifles, they got more game than their competitors. A little later Sharps 40-90 and 45-100 rifles were introduced on the coast, and the fur yield increased largely. As more hunters came, the otters grew wilder until by '78 it was necessary to shoot at 250 to 500 yards. In that year Weatherald and Grover sold 47 skins as their season's kill.

The price of skins rose until in '76 a prime pelt brought $75. In '77 they dropped to $30; rising gradually again until the Hoquiam mills started, in '87, with G. H. Emerson as manager. Emerson bought the catch of the beach for a few years, and the hunters rejoiced; but as he lost money on furs and made it up scaling the logs for the mill, it ored trouble between the hunters and the lumbermen.

The beach on the Washington coast is low and wide. The white hunters built derricks about 40 feet high and from them shot most of their otters. The Indians killed their game 1 to 5 miles off shore, prowling about in canoes until they found an otter asleep on the surface of the water.

Animals killed from the beach were washed ashore by the tide. As hunters increased in number, quarrels frequently arose when 2 or more persons claimed to have killed the same otter. It was finally agreed that each hunter should mark his bullets with a different letter or symbol, and in that way trouble was avoided.

The otters decreased rapidly before such persistent warfare, and when the schooner "Kate and Annie" cruised the coast 2 seasons, hunting them, the few remaining animals sought other waters. For 2 years scarcely an otter was seen. In 1901 a few returned and 9 were killed, the pelts bringing $150 to $300.

Even in their time of greatest abundance sea otters never ranged North of Point Granville nor South of Gray's harbor, though their food, clams and crabs, was plentiful all along the coast. Between the points named are peculiar currents running, within a few miles of each other, in opposite directions. That may account for the otters' choice of habitat, as facilitating their travels up and down the coast.

CAN A DOG THINK?

I have been much amused in watching the behavior of a little black spaniel belonging on the ranch where I am a sojourner. He has some of the instincts of a hunter, and goes into ecstasies when he sees me take down my rifle.

The cabin in which I camp is within the edge of timber, in which are numbers of gray squirrels. Nig chased one into a pine one morning. My daughters, from the kitchen window, heard him barking and called to me:

"Nig has something treed."

Picking up the rifle I sauntered out and presently discovered a squirrel perched on high, regarding me with curiosity and Nig with disgust. A shot brought him down and made the spaniel my warm friend.

He watched the skinning with great gravity, and when the dressing was completed claimed the offal for his own; though I do not think he ate anything but the skin. In an hour or 2 he announced by furious barking, that he had another squirrel treed. I did not go to him, so he left his game, ran into the room where I sat reading, punched my knee with his nose, went to the door, and there stopped to see what I intended to do. I had just finished cleaning the rifle and was loth to foul it again for one squirrel; but at last I yielded to the dog's importunity and went with him. He went directly to a particular tree, and contrary to my expectations, there sat the squirrel. It fell at the dog's feet, was borne to the house, dressed and set aside with the other. As the spaniel sat watching me I talked pleasantly to him about the squirrel. He looked on soberly, noticing my talk only by an occasional wag of his tail; but in the afternoon as he lay at my feet while I read, I suddenly asked him if he would not better look out for a squirrel. He sprang up, ran to the woods and hunted half an hour.

Leaving the home at the ranch he attached himself to our humble household, and was for some time our steadfast companion and guard; taking his meals with us, rather than at his proper home.

On one occasion my daughter put his dinner on a plate and set it back of the house. Nig lay by the front door asleep. Presently I called to him: "Nig, your dinner's ready in the back yard." Up he sprang and around the house he ran, straight to the dish.

It is the general belief that the man goes to heaven, but that his dog ends his career at death. If that be so, then, the wrong fellow often gets to the right place.

W. H. Nelson, Boulder, Colo.

Your story is interesting, but why kill 2 harmless and beautiful animals to please the dog? Wild animals and birds are now divided by naturalists and good sportsmen into 3 classes: Pets, game and vermin. The first should not be killed. The others may be at the proper times and in reasonable numbers. The squirrels are in the first class.—EDITOR.

AS TO GREY SQUIRRELS.

I note your article on grey squirrels in August RECREATION in answer to F. E. Williams, of Spring Valley, Minn. A person is guided largely by his own experience and both of you are right. The instincts of grey squirrels are the same, but their habits vary with the conditions by which they are surrounded. I have had some experience with wild grey squirrels, having bought several tons of corn ears for them within the past year. At first I allowed them free access to the crib, which is close to large timber, but I found them so extravagant and wasteful I had to check them. On any day I could see them carrying away whole ears of corn. There are bushels of cobs in the woods and I have frequently found ears of corn in the brush near.

I stopped this practice to a great extent by placing sheet tin over the holes on the side of the crib so a squirrel can only enter by bending his body. As they can not bend the corn ears, I frequently find ears partly out of the hole, but jammed against the tin. The squirrels are smart enough to take out half ears now.

The reasons for this habit seem to be, with my squirrels, caution and convenience, not the instinct of supplying future needs. By carrying the whole ear to a place of safety they can eat the grain at their leisure. If they wish to feed their young, it is easier to carry the ear than the loose grain to the nest. These squirrels do not seem to hide a single grain of corn. They eat what they want and throw the rest away. They feel certain there will be corn in the crib. They will eat cracked nuts at once, but they will invariably bury whole nuts, no matter how hungry they may be. I have tested them by throwing out one nut at a time. They seem never to tire of digging, but they do not bury 2 nuts in the same place.

A grey squirrel will eat only 6 to 10 cracked hickory nuts on a cold morning, but their appetite for corn seems unlimited. They eat only the rich, oily germ, throwing away 90 per cent of the grain. For this reason, a quart of shelled corn will not last a squirrel 2 days. There are several quarts of germless shelled corn lying on the ground under my crib. Chickens know that the best of the kernel is gone and refuse to eat the remainder.

Fredk. A. Canfield, Dover, N. J.

HAS THE ORIOLE CHANGED ITS SONG?

Have you ever known or heard of any bird that has changed some of the notes in its song? The golden robin, or Baltimore oriole, as it is often called, has, to my ears, and to the ears of all my brothers and sisters and some friends, decidedly changed its song during the past 20 years or more. The character of its song, I mean, the tone, *timbre,* or quality, remains the same, undoubtedly distinguishing this bird among others; but the scale, or melody, has undergone a decided change. I have not, for many years, heard the song I was familiar with and could imitate perfectly, and that I remember as well as I do my A, B, C or the bugle call. This may sound odd, but I am sure of what I say. If you know of anything that can account for this change in the song of a bird, I am curious to learn what it is. This was again brought to my notice by the advent of the orioles here last spring, and they have added still another change of note at the termination of the melody; one I never heard before. I suppose everyone has remarked that the song sparrow has several different ways of ending its song, and sometimes, of beginning it; but the oriole has changed his song entirely from that which I knew 30 years ago. Can it be due to a mixing of breed?

S. W. F., Portsmouth, N. H.

ANSWER.

Such a change in the song of the oriole, in 30 years time, is quite possible, but unusual. There is great individuality in songs of the same species, often greater, comparatively, within a circumscribed area than when individuals from a larger extent of country are compared. It is an example of evolution, but might be either progressive or retrogressive in character.—EDITOR.

CANNIBAL RABBITS.

Last winter, during the time of our big snow, a cat caught a rabbit close to my barn. I heard the rabbit squalling and drove the cat away before she had killed her victim, but bunny died that night. In the evening it snowed again, covering all old tracks. The new snow, the next morning, gave a clear account of what had occurred during the night. I found the partially eaten carcass of the rabbit lying 20 feet from where it had died. Its flesh hung in long, fine shreds or strings—just such work as I imagine a rabbit would do with its long, sharp teeth; and not a track of anything except rabbits was to be found. Neither cat, owl nor any other beast or bird had set foot in the snow near that place.

I tracked 4 rabbits from there and jumped them all within 50 yards. I am as certain that carcass was eaten by rabbits as if I had seen them eating it. At the time this occurred the ground had been covered with snow 2 weeks or more. I was compelled to believe what, before, I

would have scouted as being the veriest nonsense.

Does any other reader of RECREATION know of rabbits eating flesh?

A. C. Thatcher, Urbana, O.

THE GROWING AND SHEDDING OF ELK HORNS.

Elk here shed their horns the latter part of March or fore part of April. I have known bulls to shed in February, but such cases are rare. When one horn drops off, the bull will adopt violent measures to rid himself of the other. I have several times found a freshly shed horn sticking up with the points driven in the ground by force, or tangled in a bunch of brush. In most cases the horns of a pair will be found near one another.

The new horns must begin to grow almost immediately, as by May 15 they have a good stock. By August 15 they are full grown, and in some cases stripped of the velvet. Elk do not, as generally supposed, have a point on their horns for each year of their age. Their first horns are spikes about 12 inches long; their second horns have 4 points; their third horns, 5 points or 6 small ones; their fourth horns and all later have 6 points. Sometimes freak horns are seen with as many as 9 points or even more.

There are now 3,000 elk in this valley. They seem to be in good shape and doing well. S. N. Leek, Jackson, Wyo.

DO BIRDS WHISTLE OR SING?

It has often been cause for astonishment that an animal so remote as a bird in the line of development from man should be the only creature capable in the least degree of imitating the human voice. A talking horse has from time to time been advertised; but for practical purposes man's only mimic is the bird. An American naturalist has recently written to prove that birds are not singers, but whistlers; that is to say, that the notes are produced through the tube known as the glottis, not by the help of vocal cords; but the whole distinction is beside the point. Anyone who has seen a bird singing will have seen both the vibrations of his throat and the variations in the extent to which he opens and closes his beak or mandibles; and given these accompaniments, together with the production of an articulate language, whistling and singing become identical, in spite of technical terms suggesting a distinction. People are accustomed to the idea that only a few species of birds, such as the parrot and the jackdaw, can be taught, but in wild life almost all birds are mimics to some extent, and probably more of them than people realize could be taught to imitate human sounds. The starling has astonishing skill in taking off other birds; and even the raucous jay can produce a song, or a whistle, if the word is preferred, which would do justice to a thrush.—London Globe.

NATURAL HISTORY NOTES.

I do not think porcupines are responsible for the disappearance of deer antlers. In Southern Michigan there are but few porcupines and many deer, yet I never found a shed antler. I have found a number of skulls with antlers attached. If porcupines ate the shed horns, they would have eaten the others. When in Northern Michigan I found an antler apparently buried or rather trampled into the mud by a deer, as there were tracks all around the place. I asked an old trapper about it. He said the buck buried it so it would become soft, and would return and eat it. That seemed the belief of all Indians and trappers that I inquired of, but I do not know why they believed it. Should like to hear from some one who knows.

C. Ribler, Litchfield, Mich.

In August last, while camping with other members of a club at Florence Heights, 15 miles from Trenton, N. J., I caught an eel on a hook and line. In cleaning the eel I found it contained spawn. Such an occurrence has never been known in this part of the country before. If any other reader of RECREATION has ever had a similar experience I should like to hear from him and to learn particulars.

A. T. Stewart, Trenton, N. J.

As to what becomes of the horns: Three years ago, while in the Adirondacks, I saw 2 mice working on a horn in the woods. Two years ago, in the same country, I saw a red squirrel running with a queer looking object in his mouth. I fired, causing him to drop what proved to be a piece of deer horn. Any and all rodents will and do eat shed horns wherever found.

G. G. Piatt, M.D., Wayland, N. Y.

I have seen grouse standing on the edge of a sap trough picking drops of maple sap from the end of the spile. I have seen them picking dew from leaves when there were pools of clear water all around. I studied their habits closely when they were abundant and before so-called sportsmen made them wild, but have never seen them drink.

C. Riblet, Litchfield, Mich.

I subscribe for your valuable magazine. I used to buy it from my news dealer, but the demand became so great that unless I was on hand when they came in I could not get a copy, as they were sold at once. RECREATION has been the means of reforming many heretofore game hogs, myself included. As soon as read, I pass my copies around among my friends, who like to read it, and I am sure it will do them no harm.

W. C. Green, Searights, Pa.

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Muskingum,	Frank D. Abell,	Zanesville.
Scioto,	J. F. Kelley,	Portsmouth.

LOCAL WARDENS IN CONNECTICUT.

Fairfield,	George B. Bliss.	2 Park Row, Stamford, Ct.
	Harvey C. Went,	11 Park St., Bridgeport, Ct.
Fairfield,	Samuel Waklee,	Box 373, Stratford.
Litchfield,	Dr. H. L. Ross,	P. O. Box 100, Canaan, Ct.
Middlesex,	Sandford Brainerd,	Ivoryton.
New Haven,	Wilbur E. Beach,	318 Chapel Street, New Haven, Ct.
"	D. J. Ryan,	188 Elizabeth St., Derby.

LOCAL WARDENS IN MASSACHUSETTS.

Norfolk,	Orlando McKenzie,	Norfolk.
"	J. J. Blick,	Wrentham.
"	S. W. Fuller,	East Milton.
Suffolk,	Capt. W. J. Stone.	4 Tremont Row, Boston.
Worcester,	B. H. Mosher,	Athol.

LOCAL WARDENS IN NEW JERSEY.

Mercer,	Jos. Ashmore,	124 Taylor St., Trenton.
Mercer.	Edw. Vanderbilt,	Dentzville, Trenton.
"	Roland Mitchell,	739 Centre St., Trenton.
Morris,	Joseph Pellet,	Pompton Plains.
"	Chas. W. Blake,	Dover.
"	Francis E. Cook,	Butler.
"	Calone Orr,	Hibernia.
Somerset,	G. E. Morris,	Somerville.
Sussex,	Isaac D. Williams,	Branchville.
Union,	A. H. Miller,	Cranford.
	C. M. Hawkins,	Roselle.
Warren,	Jacob Young, Reuben Warner,	Phillipsburg.
Monmouth.	Dory-Hunt,	Wanaque.
Hudson,	A. W. Letts,	51 Newark St., Hoboken.

LOCAL WARDENS IN PENNSYLVANIA.

Jefferson,	John Noll,	Sykesville.
Perry,	Samuel Sundy,	Lebo.
Warren.	F. P. Sweet.	Goodwill Hill.
"	Nelson Holmes,	Cornplanter.
Juniata,	Clifford Singer,	Oakland Mills.
"	Ezra Phillips,	McAlesterville.
Venango,	G. D. Benedict,	Pleasantville.
Potter,	Ira Murphy,	Coudersport.
"	Wiley Barrows,	Austin.
"	Chas. Barrows,	Austin.
Crawford,	Jasper Tillotson,	Tillotson.
"	Geo. T. Meyers,	Titusville.
"	J. B. Lamb,	Buel.
Cambria,	W. H. Lambert,	720 Coleman Ave., Johnstown.
Butler,	F. J. Forquer,	Murrinsville.
Allegheny,	S. H. Allen,	Natrona.
Beaver,	N. H. Covert,	Beaver Falls.
"	W. R. Keefer,	"
McKean,	C. A. Duke,	Duke Center.
"	L. P. Fessenden,	Granere.
"	Wm. Holsinger,	Stickney.
Lackawanna,	Wm. Weir,	Moosic.
"	Wm. Major,	"
Carbon,	Asa D. Hontz,	East Mauch Chunk.
Cumberland,	J. C. Gill,	Mechanicsburg.
Wyoming,	Cyrus Walter,	Tunkhannock.
Tioga,	E. B. Beaumont, Jr.,	Lawrenceville.
"	G. H. Simmons,	Westfield.
Lycoming,	Jas. J. Brennan,	Oval.
"	B. D. Kurtz,	Cammal.
Delaware,	Walter Lusson,	Ardmore.
Montgomery,	L. C. Parsons,	Academy.
Bradford,	Geo. B. Loop,	Sayre.
Clarion,	Isaac Keener,	New Bethlehem.
Cameron,	Harry Hemphill,	Emporium.
Clinton,	M. C. Kepler,	Renovo.
"	Geo. L. Kepler,	Renovo.
Northumberland,	G. W. Roher,	505 Anthracite St., Shamokin.
Elk,	D. R. Lobaugh,	Ridgway.

LOCAL WARDENS IN MICHIGAN.

County.	Name of Warden.	Address.
Ottawa,	W. H. Dunham,	Drenthe.
Kalamazoo,	C. E. Miller,	Augusta.
Berrien,	W. A. Palmer,	Buchanan.
Cass,	Thomas Dewey,	Dowagiac.
Hillsdale,	C. A. Stone,	Hillsdale.
Lake,	John Trieber,	Peacock,

LOCAL WARDENS IN VIRGINIA.

Mecklenburg,	J. H. Ogburn,	South Hil.
King William,	N. H Montague,	Palls.
Smythe,	J. M. Hughes,	Chatham Hill.
King & Queen,	R. D. Bates,	Newtown.
Louisa,	J. P. Harris,	Applegrove.
Henrico,	W. J. Lynham,	412 W. Marshall. Richmond.
East Rockingham,	E.J.Carickhoff,	Harrisonburg.

LOCAL WARDENS IN WYOMING.

Fremont,	Nelson Yarnall,	Dubois.
Uinta,	S. N. Leek, F. L. Peterson,	Jackson.
Carbon,	Kirk Dyer,	Medicine Bow.
Laramie,	Martin Breither,	Cheyenne.

LOCAL WARDENS IN TENNESSEE.

Sumner,	W. G. Harris,	Gallatin.
Stewart,	John H. Lory,	Bear Spring.
Robertson,	C. C. Bell,	Springfield.
Montgomery,	P. W. Humphrey,	Clarksville.
Madison,	H. T. Rushing,	Jackson.

LOCAL WARDENS IN NEBRASKA.

Hall,	E. C. Statler,	Grand Island

LOCAL WARDENS IN NEW HAMPSHIRE.

Cheshire,	S. C. Ellis,	Keene.
Sullivan,	G. A. Blake,	Lempster.
"	J. W. Davidson,	Charlestown.

LOCAL WARDENS IN VERMONT.

Rutland,	Wm. J. Liddle,	Box 281, Fair Haven
Windsor,	F. A. Tarbell,	West Bridgewater.
Orleans,	E. G. Moulton,	Derby Line.
Essex,	H. S. Lund,	Granby.

LOCAL WARDENS IN ILLINOIS.

Rock Island,	D. M. Slottard,	12th Ave and 17th St., Moline.
Iroquois,	J. L. Peacock,	Sheldon.

LOCAL WARDENS IN OKLAHOMA.

Kiowa and Comanche Nation,	A. C. Cooper,	Ft. Sill.

LOCAL WARDENS IN IOWA.

Clinton,	D. L. Pascol,	Grand Mound.
Pottawattamie,	Dr. C. Engel,	Crescent.

LOCAL WARDENS IN WASHINGTON.

Okanogan,	James West,	Methow.
Stevens Co.,	Jacob Martin,	Newport.

LOCAL WARDENS IN UTAH.

Washington,	S. C. Goddard,	New Harmony.

LOCAL CHAPTERS.

Albert Lea, Minn.,	H. A. Morgan,	Rear Warden.
Angelica, N. Y.,	C. A. Lathrop,	"
Augusta, Mont.,	H. Sherman,	"
Austin, Minn.,	G. F. Baird,	"
Austin, Pa.,	W. S. Warner,	"
Boston, Mass.,	Capt. W. I. Stone,	"
Buffalo, N. Y.,	H. C. Gardiner,	"
Cammal, Pa.,	B. A. Ovenshire,	"
Champaign Co., O.	Hy. F. MacCracken Urbana,	"
Charlestown, N. H.,	W. M. Buswell,	"
Cheyenne, Wyo.,	J. Hennessy,	"
Choteau, Mont.,	G. A. Gorham,	"
Cincinnati, Ohio,	B. W. Morris,	"
Coudersport, Pa.,	I. L. Murphy,	"
Cresco, Iowa,	J. L. Platt,	"
Davis, W. Va.,	J. Heltzen,	"
Dowagiac, Mich.,	W. F. Hoyt,	"
East Mauch Chunk, Pa.,	E. F. Pry,	"
Evansville, Ind.,	F. M. Gilbert,	"
Fontanet, Ind.,	W. H. Perry,	"
Ft. Wayne, Ind.,	W. L. Waltemarth	"
Great Falls, Mont.,	J. M. Gaunt,	"
Heron Lake, Minn.,	K. C. Buckeye,	"
Hollidaysb'g, Pa.,	H. D. Hewit,	"
Hopkinsville, Ky.,	Hunter Wood,	"
Indianapolis, Ind.,	Joseph E. Bell,	"
Jerome, Ariz.,	Dr. L. A. Hawkins,	"
Johnsonburg, Pa.,	W. J. Stebbins,	"
Kalispell, Mont.,	John Eakright,	"
Keene, N. H.,	F. P. Beedle,	"
Kingfisher, Okla.,	A. C. Ambrose,	Rear Warden
Lake Co., Ind.,	Dr. R. C. Mackey,	"
Lawton, O. T.,	Marion Miller,	"
Logansport, Ind.,	E. B. McConnell,	"
Ludington, Mich.,	G. R. Cartier,	"
Mechanicsburg, Pa.,	Dr. J. H. Swartz,	"
Minturn, Colo.,	A. B. Walter,	"
New Albany, Ind.,	Dr. J. F. Weathers,	"
New Bethlehem, Pa.,	Isaac Keener,	"
Penn Yan, N. Y.,	Dr. H. R. Phillips,	"
Princeton, Ind.,	H. A. Yeager,	"
Reynoldsville, Pa.,	C. F. Hoffman,	"
Ridgway, Pa.,	T. J. Maxwell,	"
Rochester, N. Y.,	C. H. McChesney	"
St Paul, Minn.,	O. T. Denny,	"
St. Thomas, Ont.,	L. J. Hall,	"
Schenectady, N. Y.,	J. W. Furnside,	"
Seattle, Wash.,	M. Kelly,	"
Syracuse, N. Y.,	C. C. Truesdell,	"
Terre Haute, Ind.,	C. F. Thiede,	"
The Dalles, Ore.,	C. B. Cushing,	"
Walden, N. Y.,	J. W. Reid,	"
Wichita, Kas.,	Gerald Volk,	"
Winona, Minn.,	C. M. Morse,	"

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C. H. Ferry, 1720 Old Colony Bldg., Chicago, Ill.
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D. B. Fearing, Newport, R. I.
E. H. Dickinson, Moosehead Lake, Me.
Lorenzo Blackstone, Norwich, Conn.
A. L. Prescott, 90 W. Broadway, New York City.
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E. B. Smith, Bourse Bldg., Philadelphia, Pa.

There are thousands of men in the United States who should be life members. Why don't they join? Will someone please take a club and wake them up?

REPORT FROM WASHINGTON COUNTY.

Unfortunately there seems to be no organized effort to enforce the game and fish laws throughout this section, except by 3 or 4 L. A. S. members in this village, 3 of whom are local wardens.

It has taken us fully 2 years to educate and interest the people in our protection work, as the newspapers of the county have seen fit to censure us every time we made an arrest. That did not stop us, though, and I am glad to state that at last the people are desirous of having the laws enforced. The following is our list of prosecutions:

Charles Wilson, fyke netting, acquitted; George Montanni, fyke netting, acquitted; Rodger Derome, set lining, $10; Charles Gordon, set lining, $10; Gilbert Maddeson, hounding deer, $25; Edwin Steeves, hounding deer, $25; Charles Dorn, fyke netting, 25 days in jail; William Petty, possession bass, $20; Clarence Gregory, violation of Section 33, $10; judge suspended sentence; William Adams, fyke netting, case not yet disposed of.

We were beaten in the first 2 cases, as the sentiment was entirely against us then. Besides these prosecutions I have destroyed since last spring 68 fyke nets, 4 feet to 7 feet in diameter, with hedges 15 to 200 feet long, 2 gill nets, and many set lines and tip-ups.

William Koch, Jr., Whitehall, N. Y.

LEAGUE NOTES.

Mr. C. A. Durell, of Reading, Pa., a League member, writes me that in July last he caught H. B. Hintz in the act of killing blackbirds. Mr. Durell told Mr. Hintz he was violating the State law, but Hintz replied that he was out for an afternoon's sport and intended to have it, even if he had to pay a fine. Mr. Durell accordingly placed the matter in the hands of Dr. Kalbfus, Secretary of the State Game Commission, who sent a warden to prosecute. Mr. Hintz was called up in court and fined $10 for each bird killed, making an aggregate of $40.

There is scarcely a day when some League member does not cause some lawbreaker to be run in. This reminds me again that in 1898, when the League was organized, the A. D. G. H. predicted that the League would never "accomplish any important achievements."

As soon as I was informed that Geo. Massey was killing deer and elk in the Sacramento mountains, I appointed a competent game warden in that section and instructed him to act promptly, to advise the district attorney of the district and to bring action against Massey. I understand the matter is being attended to. You may rest assured I shall instruct the district attorney to prosecute Massey to the full extent of the law.

Miguel A. Otero,
Governor of New Mexico, Santa Fe, N. M.

Governor Otero is a League member and has responded in like vigorous manner to several other appeals that have been sent him from this office, in the interest of game protection.—EDITOR.

Through the persistent and energetic efforts of H. P. Hays and W. H. Gardner, of Hollidaysburg, Pa., a strong local chapter has been organized there. It has a membership of 150 and is making life a burden to the lawbreakers in that vicinity. Nine of these have been convicted and the League members are on the trail of several others, who will be brought to justice as fast as the necessary proofs of guilt can be obtained. The League posters are displayed all over Blair county, so that even he who runs from an officer may read that there is a reward of $10 out for him. Friends of game protection everywhere should follow the example of these Blair county League men.

Lawton Chapter of the L. A. S., at its first meeting, elected the following officers: Rear Warden, Marion Miller; First Vice-President, Dr. Rosenberger; Second Vice-President, Dr. Tellis; Third Vice-President; Judge Jas. A. Morris; Fourth Vice-President, Geo. Harter; Secretary-Treasurer, Dr. W. M. Flexener. This chapter is now in running order and will strive to become the leading chapter of Oklahoma. In any event it will see that the game laws are enforced in this county.

Marion Miller, Lawton, Okla.

The Blair county branch of the League of American Sportsmen has perfected plans for a vigorous fall campaign against violators of the game law, directed especially against "sooners," or those who hunt before the opening of the legal season October 15. Each of the 30 odd township constables, who by the act of 1899 were constituted ex-officio game and fish wardens, has received from the League a copy of the game law and a circular of instructions as to its enforcement. The Pennsylvania State Game Commission has notified the local branch of its cordial sympathy and approval and will send a representative here next week to co-operate with the local officials in the work of game protection in the county.—Pennsylvania Paper.

Another live sportsman has come to the front. I refer to Mr. A. C. Cooper, of Fort Sill, O. T. A few weeks ago he went over to Lawton, rounded up the sportsmen there and sent in 25 applications for membership in the League, with a check for $25. As a result there is now a good, live, working chapter of the League in Fort Sill, under the leadership of Mr. Marion Miller as Rear Warden. Next!

FORESTRY.

EDITED BY DR B. E. FERNOW,

Director of the New York School of Forestry, Cornell University, assisted by Dr. John C. Gifford of the same institution.

It takes 30 years to grow a tree and 30 minutes to cut it down and destroy it.

THE BIG BASIN STATE PARK.

Last winter the Legislature of California appropriated $250,000 to be used in annual instalments of $50,000 for the purpose of acquiring for the State the remnant of virgin redwood forest, located South of San Francisco in the so-called Big Basin, formed by a broad valley and foothills of the Santa Cruz Mountains at their Northern terminus. The object of this purchase is to preserve as a pleasure park for the enjoyment and admiration of the citizens of the State and of the world at large one of the most magnificent examples of virgin forest growth, withdrawing it from the lumberman's axe, to which in the natural course of events it would in the near future fall a prey. For this purpose the 2,500 acres involved are most admirably located. There is no other such natural resort so accessible to so large a number of people. It will not only soon be unique in its character, when the rest of the virgin redwood forest is destroyed, but unique in its location; for it can be reached from San Francisco by rail to Boulder Creek in 2 hours and conveyance over a good road, and is, even now, easily available for a million people.

Last summer I visited this impressive region twice, in order to become familiar with its conditions, learn to appreciate its advantages, and wonder why the Commissioners appointed to make the purchase for the State are hesitating to secure the priceless possession for the people. Strange to say, although the Big Basin Lumber Company, the present owners, are willing to sell the property, in spite of the deferred payments, at a price which even at prevailing market rates would hardly pay for stumpage value, and are willing to add 1,300 acres as a donation for more complete protection of the watershed, the Commissioners hesitate. If reports are true, the objection is raised by one of the Commissioners that the price asked, $100 an acre, is too high, when similar timber can be bought for less than half that price in the Northern part of the State. It is a notorious fact that these Northern lands were secured from the Federal Government chiefly by fraudulent methods and it is hardly fair to make the price of stolen goods a basis of comparison for *bona fide* property. Neither is it proper to apply purely commercial standards in a proposition of this kind. The location of this property gives it a value for the purpose it is to serve far beyond its commercial value; which, moreover, is now above and in a few years will still more exceed the price asked. This may, indeed, become a repetition of the story of the Sibylline books. Unless there are other good reasons, unknown to the public, for deferring action, the hesitation of the Commissioners on account of price would appear suspicious.

The redwood forest in the Big Basin is composed of 3 species: the redwood, a congener of the Big Trees; the Douglas, or red, fir, a magnificent tree itself; and the tan bark oak, forming a lower tier; while a dense undergrowth of azaleas and other shrubs deepens the mystery of the forest and lends to it a feeling of woodsiness, which is absent in the open Sierra forest where the Big Trees are found, and which makes the redwood giants more interesting and impressive. The redwoods tower 300 feet and more above ground, with tall, straight shafts, without a branch for the greater length, bulging out at the foot to give support to the enormous trunk. On account of this gradual expansion at the root collar it is difficult to make diameter measurements, at a reasonable height, which will be fair. At the base many measure over 30 feet, but few probably exceed 18 feet above the swelling. The majority, indeed, are not such giants, measuring only 6 to 10 feet; while heights are quite uniform between 250 and 300 feet, with some in excess of the last figure. Of these giants there are found 5 to 20 and more an acre, often standing in close groups. Indeed, there is small doubt that many of these groups are sprouts from the stump of an old progenitor. The redwood sprouts freely and the sprouts make trees; in fact, on the cut-over lands this is the common method of reproduction. In the forest few young trees are found among the undergrowth. Ideas as to the age of the old growth have been exaggerated, although it is easy by counting the rings on the stumps of cut trees to ascertain their age. The larger number are between 500 and 800 years old. It is questionable whether many are above 1,000 or any above 2,000 years. The larger size does not necessarily predicate greater age, for trees grow at varying rates. During the first

200 years or so the rate of growth is rapid; trees of that age being 3 to 4 feet in diameter. The next foot is made in another 200 years and then a slow rate sets in until death occurs. How these trees come to their end is still an unsolved problem, for their wood is rot resisting to such a degree that the usual cause of the death of trees, fungus disease seems ruled out. Fires often lay these giants, and in this particular tract some prehistoric fires have ravaged and damaged many of them; the surrounding young growth showing that the last fire occurred more than a hundred years ago.

The preservation of this wonderful growth is a matter which interests not only the citizens of the State or the United States, but of the world, and it is hoped that no mishap or ill-considered economy will prevent the consummation of the proposed State park, which will equal in interest the Big Trees and exceed them in general usefulness on account of its accessibility.

PULP WOOD SUPPLY RUNNING SHORT.

The realization of a shortage in the natural supply of materials for paper manufacture is beginning to scare the newspaper world and suggestions regarding the remedy for a paper pulp famine are making the rounds of the press. Among these is one proposition made by the League of American Sportsmen at its last annual meeting, calling on Congress to offer a reward of $200,000 to any inventor bringing forth a substitute for wood pulp. Some enthusiastic lover of nature goes so far as to assert that "the man who shall invent a cheap and satisfactory substitute for wood pulp for paper will do more for forests and flowers than all the Legislatures in the country could accomplish in a century."

There was a time when the world could get along without wood pulp. Indeed, the use of wood pulp for paper in the United States is hardly 30 years old and assumed dimensions only 20 years ago. Since then, to be sure, the consumption has increased at a marvelous rate. While in 1881 the daily capacity of pulp mills was less than 800,000 pounds, it had more than doubled in 1887, and again more than doubled within 2 years in 1889, when it was nearly 4,000,000 pounds. Then rising steadily by about 1,000,000 pounds a year, it is now probably 15,000,000 pounds. This means an annual output of 1,500,000 tons of pulp, requiring 2,500,000 cords of wood. To this is added, in spite of high tariff rates, 2 to 3 million dollars' worth of imported wood pulp. This suggests the query how the abolition of tariff duties would help the question of lengthening supplies. Altogether, then, we now require annually about 3,000,000 cords of pulp wood.

If we take only 10 cords an acre of virgin forest as an average stand of material used for pulp wood, in the region now mainly concerned in the manufacture, 300,000 acres must be cut over annually to secure this supply. If we believe the measurings and figurings of the United States Forestry Bureau, the same quantity can be cut from the same acres in less than 25 years, again and again; hence, we would need less than 10,000,000 acres to furnish these supplies continuously, if the demand is not increased and the cutting is done with care.

The Northeastern States alone have twice that acreage fit for nothing else than timber growing; and if the owners would only study the question they could soon solve the problem of future wood pulp supplies by growing them at the rate of one cord an acre each year, under forestry methods.

Meanwhile, there are still large supplies in other parts of the country. The whole area of the Alaska coast forest, for instance, some 20,000 square miles, is one big wood pulp forest. Moreover, thousands of cords of pulp wood are wasted annually in all lumber districts, for finally the waste, tops and branches are fit enough for that use. Again, while manufacturers are still particular as to the species they want, constant changes are made. Some time ago balsam fir was refused by them; then a certain percentage was mixed with the spruce; now it is taken freely, and hemlock is also acceptable. Thus, by extension in the use of species, supplies will be increased.

Finally the "making of paper from corn stalks, wheat, straw and other vegetable product," for which the United States Congress was to offer a reward, is already an accomplished fact. Saw palmetto and many other vegetable fibers have long been known to be useful for the purpose, and the main question is merely as to the relative cost. It is stated that the National Fiber-Cellulose Company has been organized to make use of corn stalks for paper manufacture.

Foresters who have the commercial success of their art at heart, do not, however, wish to reduce the use of wood materials in any of the arts, and especially of the inferior and small sized materials, such as the acid factory is using and the pulp mill can use, when economy demands it. It is only reform in the manner of using the forest and attention to reproduction, that the forester advocates. To establish his business firmly an extension in the use of small and inferior parts of his crop is needed.

THE FOREST NURSERY.

Natural regeneration of trees by seeds is a slow and uncertain process. The floor of a forest, even of the densest and darkest one, is a well occupied place. Of the thousands of seeds, therefore, which a healthy tree matures and sheds, comparatively few ever sprout, and fewer still ever reach a stage when they are able to cope with their competitors for root space and light. It is, then, an important duty of the forester to help those seedlings which are valuable to him, in the struggle for existence, by providing a suitable place where the seed may sprout and the seedlings have the right conditions for developing. A place where trees are reared from seed is known as a nursery.

The largest nurseries in New York State growing purely timber trees are the 2 belonging to the New York State College of Forestry, at Axton and Foresters, N. Y. They are about 5 miles apart, and together produce 2,000,000 young trees, mostly conifers, white pine, Norway spruce, Scotch pine, Douglas fir, etc. Each covers an area of about 2 acres, laid out in small beds. In these beds, whose soil has been cultivated, the seeds are planted in regular rows, 6 inches apart. To protect the tender plants from the intense light and heat of the sun, as well as to retard evaporation, every bed is protected by a lath screen. It is here that the future pine and spruce forests have their origin, the seedlings, when 2 or 3 years old, being planted out on the cut areas and on the burns and slashes. By the end of the first summer, if proper care is taken, and the beds are kept clear of weeds, the trees have grown about an inch in height, with a root system of about an inch and a half. At the end of 3 years they may attain a height of over half a foot, when they are ready to be set out.

Occasionally the small trees are transplanted from one bed into another before leaving the nursery. The chief purpose of this operation is to give the seedlings, which are crowded in the original bed, room to expand their root system. More often, however, this transplanting process is omitted; and when 2 or 3 years old the trees are carefully taken out, wrapped in sphagnum moss, and shipped to the places where they are finally to be planted. Extreme care must be taken to leave the root system intact during the transportation. If handled properly, between 80 and 100 per cent. of the trees transplanted will take root in the new soil and thrive. More than one million trees have been set out from these nurseries in the last 3 years, and nearly 1,000 acres of waste land have in this way been redeemed to useful production at a cost varying from $5 to $10 an acre.

WHAT WOODS NOURISH ANIMALS.

In the light of the knowledge that the wood of coniferous trees may at certain times and seasons contain considerable quantities of mannan, which is an approved food for ruminating animals, there would seem to be need of studying anew an old and somewhat disputed, not to say despised question, as to whether or not sawdust may have any value as a cattle food when used instead of straw as an ingredient of rations for maintaining idle animals. Reports have several times been made by German farmers who claimed to have obtained useful, practical results on feeding sawdust to neat cattle; while Professor F. Lehmann's digestion experiments with sheep went to show that sawdust is practically indigestible and useless as food for these animals. It would be interesting to know what kinds of woods were administered to the animals in all these cases and at what time in the year the trees had been cut.

Kellner found that oxen fed with 2 kilograms a head of fine spruce sawdust mixed with 0.4 kilograms of molasses and 7 kilograms of cut hay ate the fodder freely, and digested 9.4 per cent of the carbohydrates of the sawdust, and 8.4 per cent of its cellulose, or, together, 17.7 per cent ; against 12.90 per cent of the carbohydrates and 23.1 per cent. of the cellulose (together 36 per cent) in the straw of winter grain, when such straw was fed to the animals instead of sawdust. He argues that, in times of dearth, fine, fresh spruce sawdust may well be used to replace straw in the rations of idle oxen, and that, when properly balanced by appropriate nitrogenous food, it may be regarded as possessing about one-half the nutritive value of straw for maintaining oxen.—Storer, in Bulletin, Bussey Institute.

I became a subscriber to your magazine last March. Since then I have received it regularly. RECREATION is the best sportsman's magazine published; full of news and excellent stories. The absence of fiction in most of the stories is a prominent feature. They are manifestly accounts of actual experience. Those who desire a change from the desk or the shop should read RECREATION and they will return to their work refreshed by the spice and originality of the stories it contains.

Arthur E. Palmer, Schenectady, N. Y.

No lover of sunshine and outdoor sports and life, can pass RECREATION. Confined to my office most of the time, its pages are a vacation to me.

J. G. Wheat, Louisville, Ky.

PURE AND IMPURE FOODS.

"*What a Man Eats He Is.*"

Edited by C. F. LANGWORTHY, PH.D.

Author of "On Citraconic, Itaconic and Mesaconic Acids," "Fish as Food," etc.

PURE FOOD LEGISLATION.

The importance of securing pure foods is now widely recognized. A number of the States have enacted general legislation regarding the manufacture and sale of food, and several others have laws regarding the sale and manufacture of one or more products. The United States Department of Agriculture, especially through the Bureau of Chemistry, has carried on extensive investigations regarding food adulteration. Many important investigations regarding the character and extent of food adulteration and sophistication have been carried on in different States by the State experiment stations, State boards of health, colleges and universities, etc., and the Canadian Government has also made important contributions to the subject.

The primary object of pure food legislation is to protect the consumer and the producer also. The consumer of impure or adulterated goods is injured in health or purse, or both, while the business reputation and purse of the maker of first class goods are injured by flooding the market with adulterated or sophisticated products. Other objects of pure food legislation are to determine what constitutes adulteration in different cases, to fix standards of purity, and to make regulations regarding labels and printed statements of the character of various products. While many States have laws making the sale of adulterated food a misdemeanor and have done more or less in the way of executing these laws, Massachusetts claims to be the pioneer in this field of State work. In 1883 the State Board of Health, then called the Board of Health, Lunacy, and Charity, began the systematic inspection of food and drugs, acting under the authority of a legislative act of 1882. The State Department of Food and Drug Inspection was organized and samples of foods and drugs were bought and analyzed by chemists employed for the purpose. In addition to Massachusetts, a number of other States have more or less strict legislation regarding the inspection and sale of foods. This list includes Connecticut, Idaho, Kentucky, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Maine, Michigan, Minnesota, Missouri, Montana, Ohio, Oregon, Pennsylvania, Vermont and possibly others. The States differ regarding the strictness with which the laws are enforced. For instance, the Connecticut law makes it unlawful for any person to manufacture or offer for sale any article of food which is adulterated or misbranded, and defines at length what constitutes adulterating and misbranding. The Connecticut Experiment Station is charged with making analysis of food products suspected of being adulterated, samples being bought in the open market, for that purpose; and the station is authorized to fix standards of purity, quality or strength. The penalty for adulteration is a fine not exceeding $500 or imprisonment for not more than one year. The act carries an appropriation to the station of $2,500 a year to defray the expenses of the inspection.

The Kentucky law exempts spirituous, vinous, and malt liquors from the provisions of the law. The penalty for adulterating food products is the same as that fixed by the Connecticut law. The compensation which the station is to receive for the inspection is $5 and traveling expenses for each sample taken and analyzed, the expenses of the inspection in no year to exceed $2,500. These illustrations are sufficient to show the general character of the State laws.

The widespread adoption of the system of paying for milk and cream according to its fat contents, as determined by the Babcock test, has led Maine and Vermont to pass laws providing for the inspection of the graduated apparatus used in this and similar tests. The laws are also intended to limit the official use of the Babcock test to persons who have shown themselves competent to operate it. The Maine law was passed in 1895 and the Vermont law in 1898. The laws of the 2 States are alike in all essential details except the penalty.

The Maine law provides that all bottles, pipettes, or other measuring glasses used at any creamery, butter factory, cheese factory, or condensed milk factory in determining the value of milk or cream received from different persons, shall before use be tested by the experiment station for accuracy of measurement, and shall be ineffaceably marked to show that they have been tested. The experiment station carries on this work and is to receive for this service the actual cost incurred, the same to be paid by the persons or corporations for whom the apparatus is tested. The penalty for using untested apparatus is a fine not exceeding $50 for the first offense, nor $100 for each subsequent offense. All persons

who manipulate the Babcock test or any other test for the purpose of measuring the butter fat in milk or cream, for a basis of apportioning the values, are required to secure certificates from the superintendent of the dairy school of the State, who is the director of the experiment station, stating that they are competent and well qualified to perform the test. The rules and regulations governing the granting of these certificates are to be fixed by the superintendent of the dairy school, and the fee for issuing a certificate is not to exceed $1, to be paid by the applicant. The penalty for violating this section is a fine not exceeding $10. The law further forbids the use of sulphuric acid of less than 1.82 specific gravity for official purpose. The fine for having a weaker acid in possession where such tests are made is not to exceed $25 for the first offense or $50 for the second offense. It is made the duty of every milk inspector, sheriff, deputy sheriff, and constable to institute complaint against any person or persons violating the provisions of the law, and, on conviction, one-half of the fine is to go to the complainant, and the balance to the State.

The Vermont law omits the clause in regard to the employment of sulphuric acid of 1.82 specific gravity. The penalty for violating either of the other clauses is not exceeding $25 for the first offense nor $50 for each subsequent offense. In all other respects it is like the Maine law.

The fact is recognized that in many cases the provisions of the laws enacted simply represent the best available knowledge at the present time. Many investigations are needed before all disputed points can be settled and the fairest adjustment made as regards producer and consumer. It is evident to all that harmful materials should not be sold as food under any circumstances. In the manufacture of certain products it is claimed that the addition of some foreign substance is often necessary in order to secure the best results. Thus it is sometimes claimed that chocolate requires the addition of a certain quantity of starch. If this is true, the limit of such addition should be fixed by law. If mixtures are to be sold, they should not be given misleading names. Coffee with a little chicory added is sometimes said to be preferred to coffee alone, but the consumer should have the choice and should not be compelled to buy the mixture under the name of coffee.

In some States it is unlawful to add preservatives, such as boric acid, etc., to foods. Under any circumstances if preservatives or coloring matters are added to food, the fact should be plainly stated. The consumer can then judge whether he desires the goods or not. It is sometimes claimed that certain canned vegetables are not salable unless slightly colored and that the quantity of coloring matter present is not harmful. If the fact that such goods are colored with certain substances is plainly stated, there is at least no deception practiced. The use of any coloring matter or preservative material, which experience or observation has shown to be harmful should certainly be forbidden.

When either goods of inferior quality, or a mixture of such material and good material is sold at the same price and under the same name as articles of superior quality, the buyer is deceived if not injured. To be wise, pure food laws should be just to all parties concerned. The problem presents many difficulties, but is of such vital importance that it deserves even greater attention than it has up to the present time received.

COLD STORAGE POULTRY AND GAME.

The number of those who believe that freshly killed poultry and game are superior to cold storage goods has apparently increased. Decomposition is undoubtedly hindered in cold storage, but such lack the fine flavor of those recently killed. In the opinion of a recent writer "there is nothing attractive about cold storage poultry, yet there is a good sale for this class of goods. It is exposed for sale at the time when broilers and roasters are high in price and is good value for the price paid. It can never displace the fresh product, however, and poultry raisers need have no fear on that score.

"In autumn the big packing houses and storage companies begin to gather in chickens that weigh 2½ to 3½ or 4 pounds. These are considered choice stock and a fair price is paid for them. Even at that, the buyer makes an enormous profit simply by placing them on the market at the right time. Experienced poultry raisers recognize this fact; and while they can not store their chickens for future sale, they can and do hatch them earlier, and so are in a position to market them fresh when prices are high, just at the time the cold storage man gets his stock before the public.

"Most of the cold storage poultry is bought from farmers who have not yet learned to market their stock early in the season when the chicks are little and the prices are big. The day of the incubator and the brooder has come and poultrymen are now enabled to get out a lot of chicks early in the spring and so have them ready for the broiler market. Formerly the hatch, hatch and hatch again, with hens, from April to July prevented this. The farmer will doubtless rise to the occasion and buy an incubator when it has been

drilled into him that the May and June hatched chick is not the thing these days, and that his flock of a hundred chicks, sold in September at an average of 3 pounds each, would, if hatched 2 months earlier, have brought him double the price at an average weight of only 2 pounds. The present high price of beef has probably done more good to the poultry industry than anyone can estimate. It has taught an economical housekeeper that poultry, hitherto considered a delicacy, is, after all, obtainable at reasonable prices, and she will not forget."

A Chicago retail store has perfected arrangements for keeping poultry alive on the premises, and killing them as they are required. "Contrary to usage, the poultry in this establishment is fed from the time it is brought in until it is killed. The manager believes it keeps up the weight of the fowls, and as they are sold as soon as killed and dressed, their keeping quality does not bother him.

THE DIET OF THE LABORING CLASSES IN EDINBURGH.

Mr. Noel Paton and his associates have recently studied the dietaries of 15 families living in the thickly congested districts of Edinburgh, following the methods which have been advocated in connection with the nutrition investigations carried on by the United States Department of Agriculture. As regards income, the families were divided into 3 groups: Those with the regular wages under $5 a week; those with $5 to $5.75 a week, and those with incomes of $7 to $10 a week. The different families and groups are discussed at some length. On an average, it is stated, the typical diet of an Edinburgh laborer's family contained 107 grams protein, 88 grams fat, and 479 grams carbohydrates, together furnishing 3,228 calories. Both the protein and the energy were regarded as too small. More than one-half the protein was supplied by vegetable foods. Although more money was spent for animal foods than for vegetable foods, more nutritive material was supplied by the latter. The average cost of the diet was about $1 per man per week. The principal foods used were bread, potatoes, milk, vegetables, sugar and beef. Relatively large quantities of more expensive foods, such as beef, milk, and eggs, were consumed, and a relatively small quantity of cheaper food, such as oatmeal, peas, and barley. The authors note that there is a tendency to use bread and tea or bread and butter in place of the oatmeal porridge once so commonly eaten. The superior food value of porridge is pointed out. In order to improve the diet of families like a number of those cited, the authors believe they should be taught "that a diet of tea and bread, or of tea, bread and butter is faulty; that the faults of the tea and bread diet can be corrected by the free use of meat, eggs, or other animal food, but that this mode of correction is expensive; that the faults can also be corrected by the free use of oatmeal with milk, or of peas or beans, without extra cost; and that to correct the faults of a tea and bread diet, either money spent on animal food or labor spent on the cooking of vegetable food is necessary. If they have not the money, they must use the labor of properly cooking more nutritive foods."

WHEN IS MEAT SPOILED?

Most of us believe we can determine whether or not meat is spoiled by the senses of taste and smell. However, the term "spoiled meat" is only relative, some races relishing meat which others would consider entirely unfit for consumption. The natives of certain regions in South Africa esteem putrid meat a delicacy. More civilized races usually reject meat in which decomposition has proceeded so far that there is a noticeable odor or taste, although game is an exception, the "high" flavor of game being, of course, due to decomposition. A German investigator has recently studied the chemical changes brought about by decomposition. According to the author, these changes in meat may be divided into 4 classes. The first is not characterized by the presence of chemical decomposition products, although after 3 or 4 days the ratio of ammonia to total ammonia is increased. In the second stage amin bases of the aliphatic series, especially trymethylamin, can be detected, as well as amido acids. The third stage is one of marked decomposition. It is characterized by the odor, etc. In this stage, the amido acids disappear and fatty acids are observed; also, at times, indol and skatol. The amids become so abundant that they may be easily isolated. Finally ptomaines, for instance, putrescin, are observed. In the fourth stage, all these bodies slowly disappear, being replaced by simpler decomposition products, until finally only ammonia is noted. Naturally the first 2 stages are those which are of most interest to students of nutrition. If the ammonia content of any sample of meat or meat product exceed the normal, such goods can not longer be recommended; and if more than a trace of trymethylamin occurs, the meat is spoiled from a chemical standpoint. In case of sausages, the skins are characterized by the early occurrence of hydrogen sulphid, indol, and skatol, as well as relatively large quantities of amins and fatty acids. Therefore especial attention should be paid to the skins of the sausage and the material immediately adjoining, as this portion shows the first indication of decay.

BOOK NOTICES.

Under title of "The Kindred of the the Wild," L. C. Page & Co., Boston, have published a collection of Charles G. D. Roberts' latest stories of animal and forest life. Mr. Roberts is at his best in these stories, being heart and soul a lover and a careful student of the great North woods and having a definite theory of his own as to the reason for the existence of the animal story. Besides, he is always a writer of pure and beautiful English, and no careless, slipshod work mars the pleasure he gives his readers. He is particularly happy and poetic in his titles, as witness, "The Moonlight Trails," "The Lord of the Air," "The Haunter of the Pine Gloom."

"The Kindred of the Wild" is elaborately illustrated from drawings by Charles L. Bull, which are strong, imaginative, effective, and which add greatly to the attractiveness of the book.

"Company Commander's Manual of Army Regulations," is the title of a neat compendium published by the Hudson-Kimberly Company, of Kansas City, Mo., and written by Lieut. Wm. H. Waldron, of the 29th U. S. Infantry. The book is a compilation of all regulations and orders relating to duties of army officers, especially those who command companies or detachments. It is conveniently arranged, with an excellent index, and will be found most useful to the many young captains that the large increase of the army within the past 3 years has brought into the service. The manual contains blank forms and instructions for making out same, which, to the uninitiated, will be invaluable. It is a *multum in parvo,* and its low price, $1, and general handiness, should make it popular.

A timely book, "The Tactics of Coast Defense," has just been issued by the Hudson-Kimberly Co., of Kansas City, Mo. Its author is Major J. P. Wisser, of the Artillery Corps, U. S. Army. Major Wisser is one of the best known officers of the army on general tactics, and his work on coast defence possesses more than ordinary interest to military readers. Its value can, possibly, be realized only by the technical artillery student. The author undoubtedly uses in his compilation much material that is old, and a great deal of other material that is new but wholly theoretical and untried, yet his general conclusions are sound and convincing. The work must be of much worth to all artillery officers seeking to improve their arm of service. It is tastefully bound and sells for $2.

The manuscript of the "Trumpeter's Hand-Book and Instructor," by William S. Littleton, Chief Musician, 4th Cavalry, U. S. A., Fort Riley, Kansas, was referred by the Inspector General of the Division of the Philippines to a Board consisting of the Regimental Adjutants of the 6th Artillery, the 20th Infantry, and the 21st Infantry, to report on its merits. This board reported:

"The book is well adapted for use in the Army. It furnishes a simple and easy method of self instruction for persons who desire to become proficient performers on the trumpet, and consolidates into one volume the various calls pertaining to the several branches of the service."

Published by the Hudson-Kimberly Publishing Co., Kansas City, Mo.

The latest "Little Journeys to the Homes of Eminent Artists," by Elbert Hubbard, is "Gainsborough." It is uniform in style with the preceding pamphlets and contains a frontispiece portrait of Gainsborough. Its most delicious line, "From a fire-proof safe to liberal theology is but a step," happens not to be written about Thomas Gainsborough at all. However, much that is delightful and interesting is said in the booklet about the eminent artist, and readers of The Philistine will welcome this addition to the set.

Price, 25 cents; Roycroft Press, East Aurora, N. Y.

The U. S. Fish Commissioner has recently published a report on the fishes known to occur in Lake Champlain. The list embraces 54 species and is by Drs. Evermann and Kendall. Every species ever recorded from Lake Champlain or any of its tributary waters is included. The principal game fishes are the large mouth black bass, the small moutn black bass, wall-eyed pike, lake trout, brook trout, pickerel, pike, and muskalonge.

"Golf," by William G. Brown, is a defense of the game against its detractors, and a setting forth of the reasons why it should find a permanent home in America, to the lasting benefit of those Americans who continue to play it because they like it.

Published by Houghton, Mifflin & Co., Boston and New York; price 50 cents, net.

PUBLISHER'S NOTES.

A STRONG COMBINATION.

August 6 the Gundlach-Manhattan Optical Co. was incorporated with a capital of $600,000. This corporation takes up the entire plant and business of the Gundlach Optical Co. of Rochester, N. Y., and the machinery, stock, patents, and business of the Manhattan Optical Co. of N. Y., Cresskill, N. J. The plant of the latter company has been closed, and the effects are being removed to the Rochester plant of the new corporation, where all the product will be manufactured in the future. RECREATION readers know the Gundlach Optical Company as the manufacturer of Korona cameras and a complete and efficient series of lenses, headed by the Turner-Reich Anastigmat. They furthermore manufactured, in addition to a complete line of photographic goods, an excellent line of microscopes, objectives, and accessories, and had recently branched out into the manufacture of the Turner-Reich field glass. "It's all in the lens" is the trade mark of a line of goods favorably known wherever photography is practised. The Manhattan Optical Co. of N. Y. were the manufacturers of the Wizard cameras, a line that has steadily improved in every respect, and that has justly won the high regard of the photographic public. They also made a complete line of photographic lenses, which was recently amplified by the addition of the Verastigmat, concerning which much favorable comment has been made. The new combination is strong, and success awaits it.

HUNTERS LOOK TOWARD MAINE.

November, the month when thousands of mothers croon that simple lullaby,

"Bye baby bunting,
Papa's gone a-hunting,"

the month when Maine's wilderness receives its throngs of eager sportsmen, is almost here. What are you going to do about it? You'll join the crowd and go hunting, too, if there is a spark of sport-love left in you. The Maine wilderness is ever replete with scenic and other natural attractions; but this year's game supply, which, according to all reports, exceeds that of any season for some years past, will overtop all other attractions for the man behind the gun, and will cause him to long for Maine's open season to commence.

Every man who intends to make a trip into the Maine woods this fall should send first for a copy of "In Pine Tree Jungles," the new 174-page guidebook issued by the Bangor & Aroostock railroad. The book is filled with information concerning Maine's immense game region, where the big game is most likely to be found, how to reach it most easily, and a great deal of other timely matter which every sportsman will be glad to read. Send 10 cents in stamps to Geo. M. Houghton, Traffic Manager, B. & A. R. R., Bangor, Me., and a copy of "In Pine Tree Jungles" will be sent you by return mail. Please mention RECREATION.

OLD FRIENDS FORM NEW FIRM.

Some time ago I printed an article in RECREATION to the effect that Uncle Dan Lefever, of Syracuse, had gone into business for himself. I called on him a few days ago, and found him up to his eyes in work among a lot of other gun makers, including his 3 sons. The name of the new firm is D. M. Lefever, Sons & Co., and the address is 207 North Franklin street, Syracuse, New York. It would pay anyone to see this new gun shop, but, as most readers of RECREATION are too far away from Syracuse to avail themselves of the opportunity, the next best thing for them to do is to write for a catalogue, and to learn from that all about the high grade guns Uncle Dan and his crowd are turning out. They are making a specialty of 16- and 20-bore featherweight guns. These are made as light as 5 pounds, and even 12-bore as light as 5½ pounds. In these days of research and experiment in the direction of lightweight small bore guns, sportsmen in general will certainly be interested in this announcement.

The new house will also make you as heavy a gun as you want, and will make it right.

Uncle Dan has been making guns 53 years, and certainly knows all that is worth knowing about the business. His ad appears in this issue of RECREATION. When you write him please say where you saw it.

CAN DEPEND ON THEIR GOODS.

H. J. Putman & Company, Minneapolis, Minn., make in this issue of RECREATION a valuable offer. See Putnam's ad on another page. When you are in need of a pair of hunting boots or shoes, cut out this coupon, send your order and the coupon to Putnam, with check to cover, and he will send you the boots or shoes and a watch. You may feel perfectly safe in doing this. I know Mr. Putnam personally, have done business with him nearly 3 years, and have always found him thoroughly reliable.

In asking for this watch you need not ex-

pect a high grade movement nor a gold case. You will, however, get a good solid gun metal case, containing a movement that will keep good time. This will prove a practical, reliable watch to carry with you in the woods, enabling you to leave your good watch at home. It will also enable you to pawn your good watch for money on which to make your hunting or fishing trip. I hope, however, that this may not be necessary. Putman boots need no recommendation from me. Thousands of RECREATION readers are wearing them, and if you know any one of these men he will tell you the goods are all right.

EXPERIMENTS WITH THE KRAG.

The defeat of the American riflemen by the Canadian and Irish teams has spurred many experts who had faith in American marksmanship to look for the cause in the rifle and ammunition and the adaptation of one to the other. Dr. Hudson, who has been recognized as an authority in ballistics, after experiments with different barrels fitted to the Krag rifle, decided that a quicker twist than Government Standard would throw the 220-grain bullet with more gyrostatic stability and consequently greater accuracy at 1,000 yards. The ammunition companies also conducted experiments in changing the bullet so it would function better in the Krag as now chambered. A few weeks ago Mr. Thomas, of the U. M. C. Co., visited Sea Girt with an improved bullet, which was made without the 3 rings of the Government model and had certain other technical changes. With this bullet Lieutenant Leizear, of the Eighth Pennsylvania, made 73 out of 75 at 1,000 yards, which is the best score made up to that time with the service Krag. The best Canadian score made by the winning team last year was 64.

LATEST IDEAL NEWS.

The Ideal Manufacturing Co., of New Haven, Conn., is now ready to furnish its new Straightline hand loader. It will be made for 10, 12 and 16 gauge only. Price complete for one guage $2.50. It may be fastened to a bench or not, as desired.

This company has also decided to print and issue a 16-page booklet devoted entirely to the subject of loading and reloading paper shells for shot guns. The pamphlet is now in the hands of the printer and will soon be ready to send out to any address free of charge.

For years past the Ideal Hand Book has been a standard work among sportsmen, not only in this country, but all over the world. No man who desires to keep up with the procession regarding ammunition and gun implements can afford to be without a copy of this excellent book. The 1902 edition is just out, and every reader of RECREATION should write for a copy of it. Address J. H. Barlow, Manager, New Haven, Conn. Mention RECREATION.

KNOWS HOW TO PLEASE SPORTSMEN.

W. H. Jones & Co., dealers in wines and liquors, have a full page ad of their goods on the second page of the cover of this issue of RECREATION, and it is likely this announcement will be found there throughout the coming year. This is one of the oldest houses in this line of business in the country. It was established by William H. Jones, in 1851, and has enjoyed an enviable reputation for fair dealing from that day to this. Mr. Westley Jones, one of the members of the firm, is a thorough sportsman and a contributor to RECREATION. His article entitled, "On the Nez Perces Trail," published in July RECREATION, was read and enjoyed by thousands of sportsmen, and has called out many interesting comments. The man who enjoys hunting as Mr. Jones does must certainly know how to cater to the wants of other sportsmen. I have no hesitation in saying that any reader of RECREATION who may order goods from this house will get what he pays for, and will be pleased with it.

AN APPRECIATIVE MANUFACTURER.

We hand you herewith a communication just received from Plainville, N. J. We trust you will be able to give the writer the information he desires.

We are proud of our reputation as manufacturers of a good line of sportsman's specialties, but the credit of publishing the best sportsman's magazine in the country is not justly our due and we shall turn over all inquiries we may receive in this line for your consideration. We also beg to mention that we have just received a communication from Baron Paul Tcherkassov, of St. Petersburg, Russia, for information concerning our specialties and mentioning RECREATION as his source of information. In the past we have received many inquiries from several foreign countries mentioning RECREATION, so we judge that your publication is as well appreciated abroad as at home.

Marble Safety Axe Company, Gladstone, Mich.

Unauthorized persons, seeking to profit by the improvements in air mattresses devised by the Pneumatic Mattress & Cushion Company, and particularly their patented stays, are offering to customers mattresses which infringe the said patents and are mere evasions in the shapes of the stays and the arrangement of the stay ends or buttons for retaining the stays in the mattress wall without danger of leakage. Buyers and users of these articles are equally

liable under the law with manufacturers and sellers. Therefore the Pneumatic Mattress & Cushion Company asks its friends to notify it of any such infringement coming to their attention. Persons found with infringing mattresses in their possession will be held to full responsibility under the law.

Everyone ought to keep a little good whiskey in the house, for use in case of accidents, fainting spells, exhaustion, or other emergencies; but it should be good, pure whiskey. Poor, adulterated whiskey is injurious. Hayner whiskey goes direct from the distillery to the consumer, with all its original strength, richness and flavor, carries a United States registered distiller's guarantee of purity and age, and saves the enormous profits of the dealers. Read the offer of The Hayner Distilling Company elsewhere in this magazine. They are a reputable house, have a paid up capital of half a million dollars, have been in business over 36 years and will do exactly as they say.

Warren, Ohio.

Messrs. Wing & Son,
New York.

Dear Sirs: Twenty years ago we bought one of your pianos for use in our school. This instrument has been in constant service ever since, and is still good in tune and action. Among the large number of pianos owned by us there are 9 different makes, and I am pleased to say none of them stands wear or keeps in tune better than the Wing. During the past year we have bought several of your No. 5 and No. 6 pianos for classroom and other use, finding them in every case good instruments, worthy the confidence of anyone wishing a first class piano. Wm. H. Dana,
President Dana Musical Institute.

George H. Daniels, General Passenger Agent of the New York Central Railroad, announces that, in addition to the new 20-hour train, the road now has 4 24-hour trains to Chicago, and 2 Empire State expresses daily. The Twentieth Century Limited, 20-hour train, leaves New York every day at 2.45 p. m. and arrives at Chicago the next morning at 9.45.

The New York Central also has 15 trains a day between New York and Buffalo and Niagara Falls; 5 trains a day between New York and St. Louis and Cincinnati; 4 trains a day between New York and Montreal and by its Boston and Albany Division 4 trains a day between New York and Boston via Springfield.

Important information for farmers, stock raisers, manufacturers, miners, merchants, investors, tourists and amusement managers is given in a novel folder issued by the Union Pacific Railroad Company, containing 64 pages of matter concerning towns on the Union Pacific, Oregon Short Line and Oregon Railroad & Navigation Co., with the population of the towns, points of interest, statement of commercial enterprises both in town and tributary thereto, hotels, etc. In connection with this folder is a map which enables the reader to locate almost any point in the West.

Copies of this publication can be obtained of R. Tenbroeck, G. E. Agt., 287 Broadway, New York.

During March, 1902, the Page woven Wire Fence Company, of Adrian, Mich., shipped 169 full car loads of Page fence, and their local shipments for the same time amounted to 130 car loads more. It keeps the boys behind the looms busy.

On the average, the Page Fence Company weaves about 1,700 miles of wire into Page fence every day, except Sundays, and is increasing the number of looms every month.

If you think any other fence is as good as the Page just try it for a corral, or take it down and stretch it up again 8 or 10 times. That is a good test, and the Page fence was made to stand it.

H. S. Dills, Auburn, Indiana, makes the neatest and most compact line of decoy ducks I have ever seen. They are on the profile plan and fold down so you can easily carry a dozen of them in the pockets of your hunting coat. When set up and placed on the water, they have a remarkably lifelike appearance, and, unlike other profile decoys, they show plainly from above as well as from the side. Duck shooters who use decoys should know all about these, and, in order to get this information in a practical form, it would be well to order a sample. When writing, please mention RECREATION.

The Ithaca Gun Company recently placed an order for $25,000 worth of machinery, to be delivered at once. They will enlarge their factory to build 10,000 more guns in 1903, which will make an output of 30,000 guns for the next year as compared with 20,000 guns this year and 15,000 guns for 1901. This remarkable increase is due largely to the improvements put on the Ithaca gun, especially the new cross bolt.

The only reason we no longer carry an ad in RECREATION is that we have sold the patent rights of the Barger sight and do not now manufacture same.

Irving S. Rushworth, for Rushworth & Barger.

A LEAGUE MAN FOR GOVERNOR.

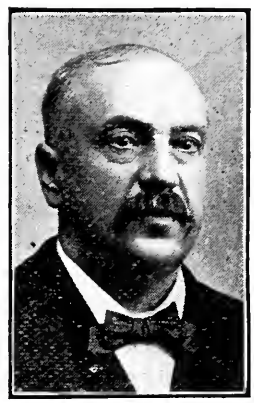
The Democratic party has nominated for Governor of New York the Hon. Bird S. Coler, a League member, who joined in 1898, and whose card number is 691. Here is an extract from the Democratic platform, on which Mr. Coler will stand if elected:

"We realize the necessity of furnishing full and adequate protection for the game animals, the game birds, the song and insectivorous birds, the game fishes and the forests of this State; and we pledge ourselves to do everything in our power to secure the enactment of good and wholesome laws to this end."

Under date of August 20th, I wrote the Chairmen of the Republican and Democratic State Committees, on behalf of the League, asking both to insert planks in their platforms expressing a due regard for the game and game fishes and the forests of this State. The Republican Committee made no reply to my letter, thus indicating plainly that they take no interest in this important subject.

The Chairman of the Democratic State Committee replied that the request of the League was reasonable and right, and that such a plank would be inserted in the Democratic platform. This was done, our plank was adopted, and a League man was named for the high office of Governor. Sportsmen may reasonably draw their own inferences. We need expect nothing at the hands of the Republican party in the way of game or forestry protection. On the contrary, the Democratic party pledges us that if placed in power it will use its utmost endeavors to secure the enactment of just laws for the protection of the wild animals, the game and song birds and the forests of this State. Now let every sportsmen in the State do his utmost to secure the election of Mr. Coler.

ANOTHER OLD GUNMAKER GONE.



The sportsmen of this country have sustained a serious loss in the death of Le Roy H. Smith, president of the Ithaca Gun Company, Ithaca, New York, which occurred in August last. Mr. Smith began life as a poor boy and by his industry and close attention to duty worked his way, step by step, to the head of one of the leading gun houses of the country. As a business man, he enjoyed the friendship and respect of all who knew him, and especially of the men who worked for and with him. He was always genial, sympathetic and courteous to everyone with whom he came in contact. By his industry and economy he amassed a comfortable fortune, and had just begun to enjoy, each summer, the recreation and outdoor life of which he was so fond and which all through his youth he had denied himself. He was a lover of outdoor sports and of nature, and his friends congratulated him on having finally acquired a position where he could enjoy these things, but he was seized with a fatal malady and taken away. Thus it is with the majority of us who have to work for our daily bread. We only begin to enjoy life when we get about through with it. Mr. Smith has furnished the means of outdoor pleasure to thousands of men, while denying himself a single indulgence. The great business which Mr. Smith built up will, of course, be continued under the management of his former associates, but they and the other good people of Ithaca will feel his loss as long as any of them live.

WILL HE DO AS ODELL DID?

Game Wardens Hill and Springer, of Seattle, Wash., both of whom are members of the L. A. S., recently descended on the Diamond Ice and Storage Co., of that city, where they unearthed several boxes of wild fowl, grouse and prairie chickens, aggregating some 300 birds. The manager of the cold storage house of course claimed

that the birds did not belong to him, but that they had been placed there by Maison Barberis, a restaurant keeper, and F. D. Black, a hardware man. The manager of the storage plant was, however, placed under arrest, as were 2 other men, and the birds will be produced in court as evidence in the prosecution. It will be interesting to know the result of this case and to find out whether the Governor of Washington will next winter advise the Legislature to pass a law allowing the storage of game in close season in order that it may be sold when the open season comes. That is what Governor Odell did in New York. He not only recommended but secured the passage of such a law, and this caused an action against a cold storage house in this city, in which 55,000 head of illicit game had been found, to be discontinued.

EGGS MAY BE IMPORTED.

The Hon. John F. Lacey has done still another great service in the cause of game protection and propagation in securing the passage through Congress of a bill authorizing the importation of the eggs of game birds for purposes of propagation. The bill provides that the Secretary of Agriculture shall have full control of such importations, and in accordance therewith Dr. T. S. Palmer has prepared, and the Secretary has issued a circular (No. 37) giving full information as to what steps are necessary in order to secure authority to import such eggs.

The eggs of the following species of birds may be imported under these regulations:

Wild turkeys, grouse, capercailzie, pheasants, partridges, quails, bustards, rail crakes, swans, geese and ducks.

Anyone interested in this subject can get a copy of the circular by writing Dr. T. S. Palmer, Agricultural Department, Washington, D. C.

NO JACKLIGHTS IN RECREATION.

Here is a copy of a letter which I recently wrote a Western sporting goods dealer and which explains itself:

I can not accept your order for advertising. The search lamp you make is purely and simply an aid to the fish hog and the game hog, 2 species of vermin I am trying to exterminate. The use of such devices as this is prohibited by law in many of the States, and should be in all of them.

I need all the advertising business I can get, but I will not advertise any article that would so materially aid in the wholesale and unsportsmanlike destruction of game and fish as this machine of yours would.

Now let us see if any of the other sportsmen's journals decline this ad. You will doubtless see it illustrated in all of them in the near future; or at least in as many of them as can get the order.

Dr. T. S. Palmer, Assistant Chief of the Biological Survey, Agricultural Department, has issued Circular No. 35 containing a revised list for 1902 of State officials and organizations concerned with the protection of birds and game. This circular gives the names and addresses of practically all the State fish and game officers of all the States and the Canadian Provinces; also a list of the game and bird protective associations, such as the League of American Sportsmen, the Audubon societies, the A. O. U., etc. Persons interested in the subject can get copies of this circular by writing Dr. Palmer, and it is not necessary to enclose postage.

The New York Sun, which ought to know better, recently printed a long article, lauding the alleged sport of dove shooting as practised in Kansas, Texas and the Indian Territory, and, in fact, nearly all over the South. As RECREATION has frequently said, the dove is a beautiful and harmless bird and in the judgment of the best sportsmen of the country is in no sense a game bird. It should not, therefore, be killed at any time. I trust the day will come when all Southern sportsmen will realize this and will ask for and secure the enactment of laws protecting doves at all times.

A dispatch from Madison, Wis., dated August 9, and printed in a Chicago paper, said that Mr. and Mrs. C. D. Moon, of Chicago, who were camping at Spider lake, Sawyer county, Wis., each killed a deer in the early part of August. Deputy Wardens Carpenter and Bowman happened in at the camp, learned the facts, and took Mr. and Mrs. Moon to Hayward, where they were fined $25 and costs each. These people have, no doubt, learned by this experience that it does not pay to violate the game laws.

If the correspondent who signs himself "A Constant Reader," Cincinnati, Ohio, will give me his name and full address I will reply to him direct.—EDITOR.

Will Mr. C. N. Truman, formerly of Ouray, Colo., please send his present postoffice address to Mr. W. C. Cortright, Box 62, Wyoming, Pa.

Will Mr. M. F. Tatman, who wrote me some weeks ago about "A Fishing Picnic," please write again and give me his address?

Schlitz

BEER is Healthful

But a "green beer"—beer insufficiently aged, half-fermented — ferments on the stomach, causing biliousness and headaches.

Schlitz Beer is well aged.

There is beer that's not pure—not free from bacilli. It's not good for you.

But Schlitz Beer is pure.

None but the costliest materials go into Schlitz Beer—the best of barley, hops and yeast. A partner in our business selects them.

We spend more on cleanliness alone than the whole cost of brewing without it.

We cool Schlitz Beer in plate glass rooms, and filter all the air that touches it.

That's an extreme precaution.

We age it for months, at a temperature of 34 degrees, before we market it.

That's a heavy expense.

Then we filter the beer, then sterilize every bottle after it is sealed. Sterilized beer can't have germs in it.

Yet Schlitz Beer—brewed with all these precautions, that double the cost of the brewing—costs you no more than common beer, if you will ask for it.

Schlitz

THE BEER THAT MADE MILWAUKEE FAMOUS

Ask for the brewery bottling.

A CAMP HUNT IN ONTARIO.

The morning of November 8 Bob and I put out in a skiff from Sheguindah bay, Manitoulin island. We were bound across North channel for a hunting trip on the Canadian mainland. We rowed hard all day through channels between the beautiful pine-clad islands so numerous in those waters. It was late in the evening when we reached the North shore and landed at Flat point. There we pitched tent, purposing to remain if we found game abundant.

The tall timber grows to the water's edge at that point; while 500 yards or so from shore a high rock ledge runs parallel with the lake, pierced at intervals by deep ravines choked with underbrush. Altogether it seemed a likely place for grouse and deer, and even for larger game.

Soon after we turned in, a furious gale sprang up, with occasional flurries of snow. The tent was sheltered from the storm by the ridge behind it, but we were several times awakened by the roar of the wind through the pines or the whistle of some tempest-tossed steamer on the lake.

At early dawn I heard the flutter of wings just outside the tent. I grabbed my rifle and, telling Bob our breakfast had come to us, stole out. Three grouse were perched in a tree near the tent. A bird's head is a difficult mark in the dim light of dawn. My first shot was a clean miss; my second scored, and a headless grouse fluttered to the ground.

At breakfast we vowed we would have venison for supper, but though we hunted faithfully all day and saw many tracks we had to be content with another bird.

The second day we had better luck. While cautiously beating up a small ravine I saw a large buck about 50 yards ahead. He was browsing maple saplings and stood almost facing me. Presently he shifted enough to expose his shoulder and I fired, the bullet striking where I aimed and going clear through.

With a prodigious bound he started on a course that brought him within 30 feet of me. Then I fired again, but the bullet evidently passed in front of him, for its only effect was to turn his rush directly toward me. Whether he really intended to charge me I do not know. At any rate, I gave him credit at the time for that amount of pugnacity and lost no time in side-stepping. The buck dashed past me and into a tangle of fallen timber, where he fell. Before he could regain his feet I got in a shot that finished him.

We spent several days at the point, and before they were over Bob also killed a deer. In addition we brought down a good bunch of grouse and other birds.

L. H. Trotter, Sheguindah, Ont., Can.

IF YOU WOULD LIVE NEXT TO NATURE, READ RECREATION.

DUCK SHOOTING ON THE MISSISSIPPI.

The April day was fast drawing to a close when I alighted at a little station on the banks of the Mississippi, in Iowa. I was met by Frank and Lew, 2 of the boys who had reached the club house, just across the river, that same morning.

Daybreak next morning found us trudging with guns and dogs toward one of the marshes close to the river, there to put out our decoys and await the first streak of dawn and flight of ducks. Just as it was light enough to see I heard Lew's 10-bore and turning saw a flock of cannonballs almost over my decoys. Pulling on the leader I doubled him up at about 50 yards, but scored a clean miss with my second. In a few minutes I heard Frank, who was some hundred yards above me, fire twice. His shots scattered the flock and a single bird headed my way, which I bagged in good shape. After waiting until the sun was well up we started back, not having a chance at another bird.

That evening the shooting was equally poor; Frank bagging 2 mallards and Lew one, while I had to be content with an empty bag.

In the morning we were delighted to find that the rain of the evening before had turned to a fine snow, which promised sport galore for that day. Making rather a late start we headed for Goose pond, back from the river and well sheltered by a thick growth of willows around its borders. At the pond and before we could place our decoys to our satisfaction, a flock of about 20 cannonballs came right over us. Hastening ashore and taking our places a few rods apart, we were soon ready. After a short interval a lone duck came within easy range and I dropped it with my left. Lew shot almost at the same time at a small flock, making a double.

By that time the snow was so blinding that we could barely see the ducks as they dropped over our decoys. They were coming in flocks, and we had as lively shooting, for about an hour, as heart could wish. We had been so busy with the ducks that when a lull came in their flight, we were surprised to find the storm had cleared and the sun was shining. We knew that ended the sport for the day at least, and after a short wait we pulled up our decoys and started for camp. A count of birds showed we had 32; so concluding we had our full share we decided to break camp the next morning.

Chas. P. Hanley, Iowa City, Ia.

The ad I inserted in RECREATION for a hammerless gun found me a great bargain. I entered ad in 4 other sportsmen's journals and find RECREATION is the leader.

C. L. Daugherty, Fairmount, Ill.

THE EQUITABLE

"STRONGEST IN THE WORLD"

J.W. ALEXANDER
PRESIDENT

J.H. HYDE
VICE PRESIDENT

A HAPPY THANKSGIVING,

Twenty years ago—on November 28th, 1882—a young man, 31 years of age, took out Endowment No. 251,427 in the Equitable for $10,000. He paid $487.40, and each year since has paid a similar amount.

This year—two days before Thanksgiving—his policy matures, and he can receive in cash

$14,885.30

This is a return of all premiums paid—and $5,137.30 in addition—to say nothing of the protection of $10,000 of assurance for 20 years.

Vacancies in every State for men of energy and character to act as representatives.
Apply to GAGE E. TARBELL, 2nd Vice President.

Send this coupon for particulars of such a policy issued at your age.
THE EQUITABLE SOCIETY, 120 Broadway, New York. Dept. No. 16

Please send me information regarding an Endowment for $.....
if issued at.....years of age.

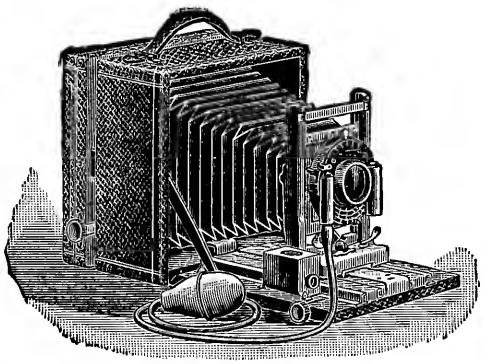
Name.....

Address.....

R YOOK, N.Y.

IT'S ALL IN THE LENS

Series V Long Focus Korona



Can be used with equal facility for everyday, hand-camera

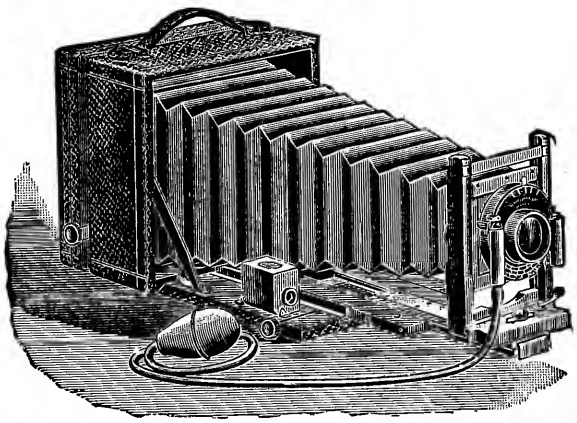
Snap Shots
Photographing Distant Views
Copying

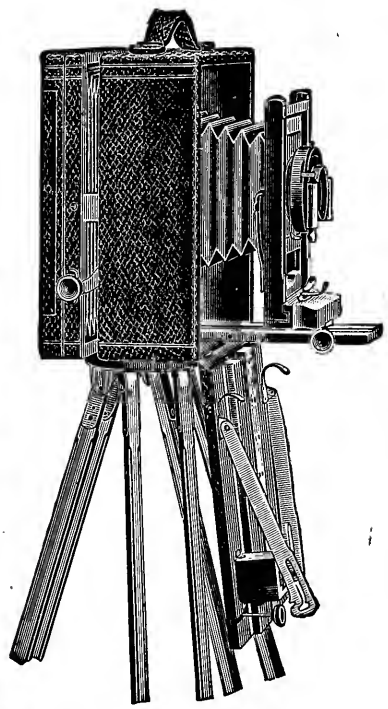
or other work needing bellows capacity, and also with wide-angle lenses for interiors and kindred subjects.

ONE CAMERA DOES IT ALL

Every adjustment is a marvel of simplicity and mechanical ingenuity, and many of them are found exclusively on the Korona.

Note our patent auxiliary bed for use with wide-angle lenses, and compare it with





the clumsy methods used to obtain this result on other cameras.

Our patent automatic swing back operates from the center according to correct principles.

KORONA LONG FOCUS

Has a Convertible Lens, Automatic Shutter, and numerous other special advantages.

Catalogue gives full information

Gundlach-Manhattan Optical Co.

ROCHESTER, N. Y.

Mention Recreation

AMATEUR PHOTOGRAPHY.

"For sport the lens is better than the gun."

I wish to make this department of the utmost use to amateurs. I shall, therefore, be glad to answer any questions and to print any items sent me by practical amateurs relating to their experience in photography.

7th ANNUAL COMPETITION.

RECREATION has conducted 6 amateur photographic competitions, all of which have been eminently successful. The 7th opened April 1st, 1902, and will close November 30th, 1902.

Following is a list of prizes to be awarded:

First prize; A Long Focus Korona Camera 5 x 7, made by the Gundlach Optical Co., Rochester, N. Y., fitted with a Turner-Reich Anastigmat Lens, and listed at $85.

Second prize: A No. 3 Folding Pocket Kodak, made by the Eastman Kodak Co., Rochester, N. Y., fitted with a Bausch & Lomb Lens Plastigmat Unicum Shutter, and listed at $61.50.

Third prize: An Al-Vista-Panoramic Camera, made by the Multiscope and Film Co., Burlington, Wis., and listed at $40.

Fourth prize: A Wizard C Camera, 4 x 5, made by the Manhattan Optical Co. Cresskill, N. J., with B. & L. Iris Diaphragm and Leather Carrying Case; listed at $33.

Fifth prize: A Waterproof Wall Tent, 12 x 16, made by D. T. Abercrombie & Co., New York, and Listed at $32.

Sixth prize: A Gold Hunting Case Watch; ilsted at $50.

Seventh prize: A Tourist Hawkeye Camera, 4 x 5, and made by the Blair Camera Co., Rochester, N. Y., and listed at $15.

Eighth prize: A Bristol Steel Fishing Rod, made by the Horton Mfg. Co., Bristol, Conn., and listed at $6.

The 10 next best pictures will each be awarded one dozen 8 x 10 Carbutt Plates, made by the Carbutt Dry Plate Co., Wayne Junction, Philadelphia, Pa.

The 10 next best pictures will each be awarded one dozen 5 x 7 Carbutt Plates.

The 10 next best pictures will each be awarded one dozen 4 x 5 Carbutt Plates.

A special prize: A Goerz Binocular Field Glass, listed at $74.25, will be given for the best picture of a live wild animal.

Subjects are limited to wild animals, birds, fishes, camp scenes, and to figures or groups of persons, or animals, representing in a truthful manner shooting, fishing, amateur photography, bicycling, sailing or other form of outdoor or indoor sport or recreation. Awards to be made by 3 judges, none of whom shall be competitors.

Conditions: Contestants must submit 2 mounted prints, either silver, bromide, platinum or carbon, of each subject, which, as well as the negative, shall become the property of RECREATION. Negatives not to be sent unless called for.

In submitting pictures, please write simply your full name and address on the back of each, and number such prints as you may send, 1, 2, 3, etc. Then in a letter addressed Photographic Editor, RECREATION, say, for instance:

No. 1 is entitled —— ——.
Made with a —— —— camera.
—— —— lens.
On a —— —— plate.
Printed on —— —— paper.
Length of exposure, —— ——.

Then add any further information you may deem of interest to the judges, or to other amateur photographers. Same as to Nos. 2, 3, etc.

This is necessary in order to save postage. In all cases where more than the name and address of the sender and serial number of picture are written on the back of prints I am required to pay letter postage here. I have paid as high as $2.50 on a single package of a dozen pictures, in addition to that prepaid by the sender, on account of too much writing on the prints.

Any number of subjects may be submitted.

Pictures that may have been published elsewhere, or that may have been entered in any other competition, not available. No entry fee charged.

Don't let people who pose for you look at the camera. Occupy them in some other way. Many otherwise fine pictures have failed to win in the former competitions because the makers did not heed this warning.

HOW THE WOODCOCK PHOTO WAS TAKEN.

I see in August RECREATION Mr. J. E. Tylor, of Oxford, Md., objects to my criticism of his photo, "Besieged." I did not say there was a string running from the coon's collar. I said there appeared to be one. I believe that other RECREATION readers interested in this last contest will agree with me that something looking much like a collar is around the coon's neck. Nevertheless, if the photo is genuine I congratulate Mr. Tylor on his ability to catch such an interesting scene.

Referring to his letter in RECREATION regarding the water being "sufficiently choppy to meet my ideas," I beg to differ from him. The wind was not to blame, nor the camera, but the person who made the exposure. Had he broken the glare on the water a few moments before the photo was taken he would have had detail in the expanse of water between the man in the boat and the shore beyond. There is detail around the dog in the water.

Referring to Mr. F. A. Greenhawk's article in the same issue with Mr. Tylor's, I notice he makes the remark that if the coon had been held by a rope the line would have been slack instead of straight, as in the photo. Not necessarily. Possibly someone on the bank was holding the rope, or cord.

Criticising my woodcock photo, Mr. Greenhawk says, "Did you ever approach

the nest of a woodcock and see it slanting the way Mr. Gosney's picture shows it? His photo looks as if he was right up on the bird."

I was.

Mr. Greenhawk further says, "Would that bird stay while Mr. Gosney got his camera in order? Birds are sensitive about being approached."

No, I never approached the nest of a woodcock and found it quite so slanting as my photo shows it. To a certain extent I am acquainted with the habits of a few of our wild birds, although not an authority. A friend of mine, Mr. Charles Saville, came to me the day before I secured the photo of the bird, said he had found a woodcock's nest, and for me to get my camera and come along. Of course I went. Mr. Saville approached the woodcock's nest carefully so as not to disturb her. That was about 4.30 p. m., and she had gone to feed. I set up my camera, about 8 to 10 feet from her nest. I focussed carefully and made the exposure on the nest alone. Before I folded my tripod and camera I took notes on how far tripod legs were spread, position of camera, scale in feet as shown on front board of camera, besides driving 3 small pegs where tripod legs stood. The next morning I went to the nest alone, moving carefully. I was rewarded by finding Mrs. Woodcock at home. My camera was already set on tripod, shutter ready, plate holder entered and slide drawn, bellows extended to scale according to my notes the day before. All that was necessary was to put tripod legs to the 3 small pegs and I was ready for exposure. I paid no attention to the bird till I took hold of the bulb to release the shutter. Then I looked down on her and was in the act of releasing the shutter when she arose from nest, her feathers all awry. She shuffled lazily around to back of her nest, then like a flash turned facing it, her head turned somewhat to one side. Thus she remained, like stone, watching her eggs, I can not say how long. I gave her 4 seconds' exposure. Then I picked up my camera and retreated slowly. The bird made a clucking noise, like an old setting hen, while she shuffled around to back of her nest. One wing hung down, as if injured, but when the photo was taken her wing and feathers lay in their normal position.

The day Mr. Saville discovered the nest he put a small stick under the bird's breast to raise her so he could see her eggs. At that time she also showed the disposition of a setting hen.

If you wish, I can send you the names of 50 people who at different times saw this mother woodcock at home. The reason the nest seems so slanting in the photo is because I wanted a panel view and the position of camera and tripod gave it the appearance of being slanted. It is possible to approach nearer a woodcock's nest during nesting time than it would be to the nest of a quail, a prairie chicken, wild duck, snipe, etc. I claim Mr. Greenhawk is wrong when he says a woodcock flies immmediately on being approached.

Homer G. Gosney.

UNCLE JOSH FOTOGRAPHS THE CALF.

When the summer gal was down here with her kodax, I had a brindle calf down in th' medder. He wuz mainly noted fer th' length uv his legs, an' th' wobbly way he used 'em; he wuz uv th' masculine gender.

Thet calf wuz jist old 'nuf tu be rambunkshus. Th' summer gal wuz determined tu take a picture uv thet calf, but th' dodgasted calf wouldn't hold still fer her tu git a fokus on him.

Well, one day she axed me wouldn't I hol' th' calf fer her; she sed she wuz makin' son. studies in "still life."

I guess she didn't find much still life in thet blamed calf.

I kinder hesitated, fer I know'd what kind uv a critter he wuz, but she wuz a mighty purty gal, an' when she made them hoo-doo eyes at me what could I do?

Well, after wrastlin him all over a 10 acre lot I got thet calf cornered an' got a close line tied 'round his neck tu hold him with.

He didn't seem anxious tu be took, but with some stratigem and a liberal application of cowhide boot I finally got him in a "proper pose," as th' gal called it.

She sed she wanted tu get th' tail in th' picture, and I didn't see how she could help it fer thet calf had his tail stickin' straight up in the air like a sore thum' all the time she wuz takin' him.

I begin to think that things wuz goin' to go off first rate, but I begin to feel happy too soon.

Jist as th' gal got us placed right, and had got a good fokus on the kodax, a feller come whizzin' past in one uv them naughty mobiles with the steam puffin' out behind.

Well scat my ——, yer otter see that calf go. He started fer th' other side uv th' medder like a streak uv greesed litnin' an' he tuk me along part uv th' way with him. Yer see th' long end uv th' close line had got tangled round my laigs an' when he started off so suddent like it jerked me ofen my feet an' drug me along th' ground till th' rope broke an' saved my life.

As I wuz a skootin' over th' ground my janes pance caught on a root er sompthin an' gol darn if they didn't rip from Genesis tu Revelations.

I guess I'd a swore if it hedn't bin fer thet summer gal.

Why, Uncle Josh! she sed, if I'd bin reddy, I could hev got another Gene Ray picture, an' I'd 'a' called it "Another Victim of Jersey Lightning."

Well, we fin'ly got M'ria tu help us; we cornered Mr. Calf agin an' tied th' close line good an' tight an' I held it. Then we tied the well rope on tother side an' M'ria held thet.

I couldn't stand very natural myself on account uv my pance, but I did th' best I cud tu look unconcerned. When th' pictur wuz dun th' gal showed it tu us. M'ria had cum out in a hurry, an' th' marks on her apurn where she had whipped th' flour ofen her hands showed up purty plain.

The gal sed I looked like "patience on a tombstone smilin' at beef."

I wonder if she meant anything by thet.

—Western Camera Notes.

THE CAMERA IS MIGHTIER THAN THE GUN.

Having wanted, for some time, to take pictures, I bought a camera. It was not one of the sort that win photo competitions, but still was a good enough picture taker. I studied the book of instructions until I mastered the art of loading the plate holder and putting it into the camera. Then I persuaded my wife to sit still long enough to have her picture taken. I met with so much success in this venture that I imagined I could take anything from a stack of hay to a runaway automobile; but after attempting to take a picture of a horse race I gave up the idea of the automobile, and turned my attention to snapping squirrels, rabbits, woodchucks, and birds.

Hunting these with a camera is one of the greatest enjoyments of my life. A grey squirrel may, now and then, taste good, and perhaps you could eat one with as much relish and little thought as a hog eats corn. A mounted grouse, quail or woodcock may adorn some corner of your study or office, but a portrait of one of these birds will represent far more skill and less expense.

If you have never tried taking the picture of a mother bird and her young, try it. Find where they live and put down cracked corn, wheat or buckwheat, or, better still, some salsify heads, of which most birds are extremely fond. After a short time the birds will find the bait. Set your camera near, focussing it on the spot, and tie to the finger release a string 200 or 300 feet long. Lay this out carefully so you can release the shutter without any disturbance in the brush. Next set your shutter at one second, and the diaphram in accordance with the amount of light. Retreat to the end of your string. There sit patiently until all is just as you wish it. In this way you will be able to get pictures that will bring you pure enjoyment, and will sell readily for a good price.

The man who hunts with dog and gun waits until his dog finds a bird. Then the dog waits until the man is ready to flush. Up goes the bird and falls, never to rise again. It drops, the prey of a heartless hunter, to be picked up and eaten or sold. It is more fun to hunt a week with a camera than to hunt a month with dog and gun. You can get your camera ready and sit watching and waiting for your game, while with RECREATION in your hands you may study the nature of your bird as others have found it, compare it with your observation and go home a wiser and happier man.

G. V. McAllister, So. Danby, N. Y.

ANOTHER CHANCE TO WIN A PRIZE.

Amateur photographers should remember that my 7th annual competition remains open until November 30th. The closing date was made 2 months later this year than heretofore in order to give all amateurs a chance to compete. Thousands of busy men do not take their annual vacations until October or November. Then they go into the woods with gun, rod and camera. It was with a view to giving such people a chance to enter the competition that the open season was prolonged. There are frequently fine days in October and November when good pictures may be taken. The leaves fall by that time and better light may be obtained in the forests. It is possible to get many more pictures of live birds and animals, especially by bait, in the autumn than in summer, and I trust this new arrangement may result in many fine pictures being entered in the 1902 competition.

WASH THOROUGHLY AT FIRST.

About a month after developing them I put some negatives, insufficiently washed at first, into a second wash. In a short time the film left the glass. What was the cause of this, and what will prevent it? What will blacken a camera which has turned red?

Chas. Boehler, Camden, N. Y.

ANSWER.

It is a not unusual occurrence. You should do the washing immediately after fixing. If well washed then the film will not leave the glass should you later desire to wet it.

When the film leaves a plate you can save it, if clean, by flowing a clear glass with albumen solution, drying it and dipping it under the film as it floats in water, carefully smoothing the film down on the glass. Albumen solution is white of one egg shaken well in 8 ounces of water.

SNAP SHOTS.

Regarding E. W. N. spotting medium, my experience is precisely similar to that of a writer in March RECREATION. The stuff does not work. I wrote Newcomb; got flooded with advertising matter about it, but got no explanation that made it work.
James A. Cruikshank, Brooklyn, N. Y.

Every photographic process requires, for its successful completion, a modicum of knowledge and a trifle of skill. In the "flood of advertising matter" which Mr. Cruikshank received he must have seen the statement that I refund money without investigation or question on receipt of returned goods. To me, as to other men, time is money. I can not afford to throw in an extended correspondence course in photography with a bottle of spotting medium at 50 cents.

Edward W. Newcomb.

How can I prevent prints from sticking to the ferrotype plate?
A. H. Harlow, East Sumner, Me.

ANSWER.

Wash and polish your plates after each use. A little alcohol or benzine does the work. Then, for collodion prints, put 2 drops of the following waxing solution on each plate and rub with a woolen cloth or pad until only a faint film is spread evenly over the surface.

Yellow beeswax, shaved..2 drams or ¼ oz.
Benzoli.....1 ounce.

Shake till wax is dissolved or nearly so. Then add:

Ether.....1 ounce.
Alcohol.....1 ounce.

—EDITOR.

In June RECREATION G. W. Damon advises those who must print at night with a kerosene lamp to use bromide paper. He adds that Velox, Dekko and Cyko will not do. Has he ever tried Velox by kerosene lamp light? He either has not or else he gets a different result from what I do. I can not tell him just how far from the light his frame must be, for I do not know the intensity of his light or the density of the negatives; I do know that fine Velox prints can be made by the light of a kerosene lamp. I use a lamp and prefer it to daylight. I am saying nothin against bromide paper and its use, but I think many who do not use Velox paper would find it just what they are looking for.

W., Felchville, Vt.

Retouching varnish may be made by dissolving ½ ounce powdered rosin in 8 ounces turpentine. Rub it over the film side of the plate. A hard lead pencil will then take on the surface.

Very light places, such as windows in interiors, may be kept back by touching the light portions as they first appear with a tuft of cotton wet in a 10 per cent solution of bromide.

Bicarbonate of soda and chloride of gold make a good toning bath, giving brown tones. A toning bath strong in borax gives a purple tone. Sal soda gives red and cherry tones.

E. T. Caldwell, Pawling, N. Y.

Will you kindly tell me the formula for making blue prints?
Harry W. Solomons, Jersey City, N. J.

ANSWER.

You will find the following formula satisfactory:

No. 1—Citrate of iron and ammonia, 1⅞ ounces; water, 8 ounces.

No. 2—Ferricyanide of potassium, 1¼ ounces; water, 8 ounces.

Mix equal parts of No. 1 and No. 2 and apply with a brush or by floating for 3 minutes. Hang up to dry in darkened room.—EDITOR.

Where one has a permanent dark room, is it advisable to use Eastman's developing powders to develop Eastman's or Seed's plates? Will the same successfully develop iso plates?
Mrs. R. McAllister, South Danbury, N. Y.

ANSWER.

Eastman's powders work well and are convenient. You could save money by making your own developer in concentrated solutions ready to use, but otherwise would gain nothing. If you use pyro powders, they are good on either Eastman or Seed plates.—EDITOR.

I see H. G. Gosney thinks his photo of a woodcock and eggs should have been given a higher place on the prize list. I think the judges made the awards correctly and I will back them up. Though the woodcock picture is a rare and valuable one, it would have been much better if the camera had been lower, so the picture would show only a few of the eggs in the nest. As it is, the effect is somewhat like looking down a well.

L. D. Lindsley, Seattle, Wash.

How long an exposure should be made when a ray screen is used?
H. Marrott, Vernon, Ia.

ANSWER.

1-10, 1-4, 1-2, to 1-1 or more, according to depth of tint of the screen.—EDITOR.

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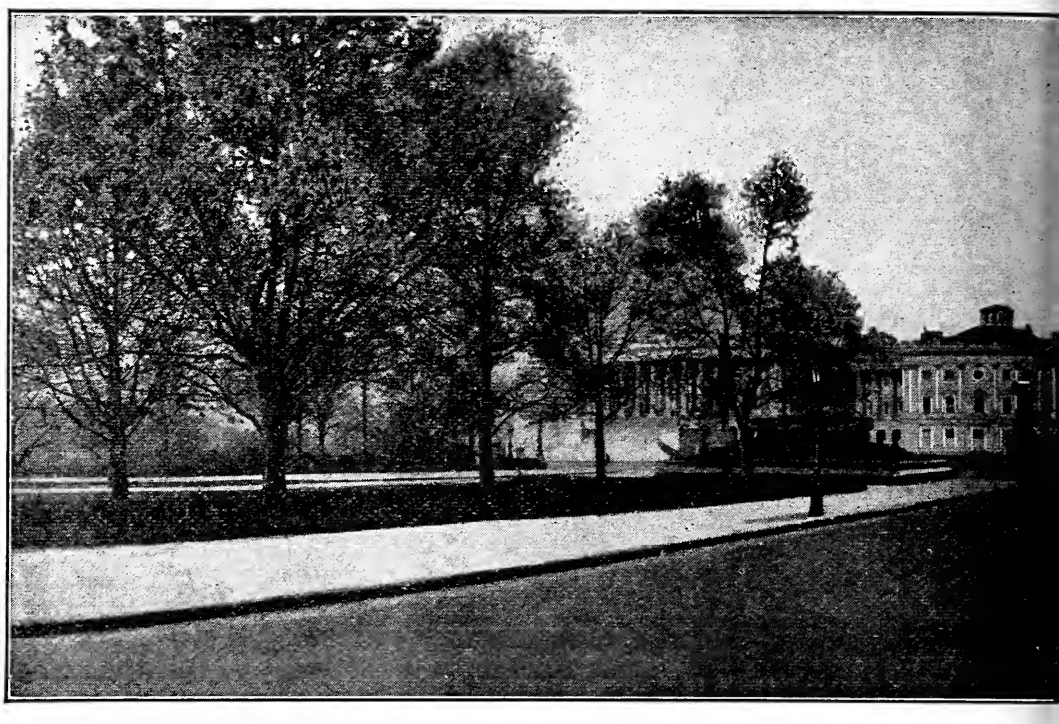

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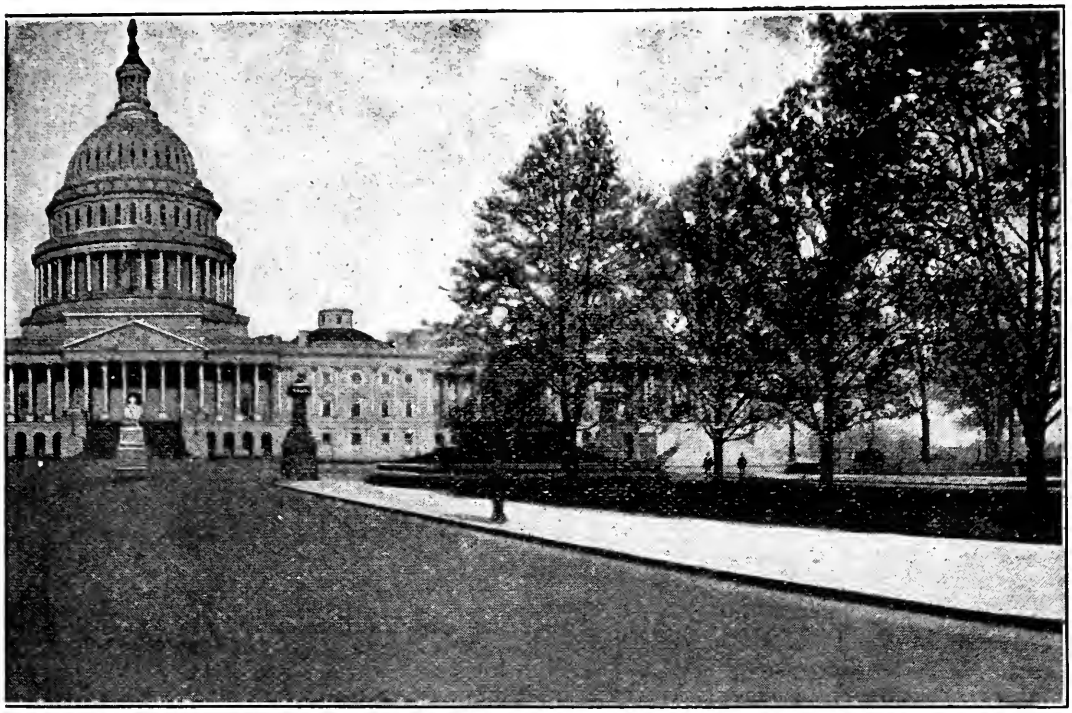

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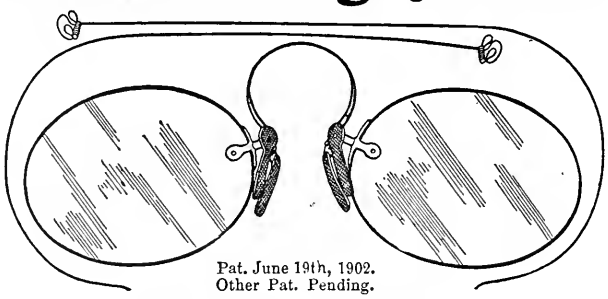

Pat. June 19th, 1902.
Other Pat. Pending.

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"BUFF."

His name was Buff. No one seemed to know why or when or where he got it; yet all his pals called him that, and that sufficed. Could that name have been given him because he spent most of his time on freight car buffers? Perhaps his complexion called it forth; for Buff was a curious bundle of rags and sallow—one could not say flesh exactly. Who would expect healthy flesh after all those meals of "pies an 'things," broken only now and then by "lucky finds," when no was looking. Buff was not a really bad fellow, but he would steal; and if his stowaway places had been searched at any time a number of articles would have been uncovered. One morning Buff awakened with a start, for he had rolled off a bridge into a creek below. It was the first time he had ever worked, and the spectacle of his spluttering and splashing will never fade. Buff reached the bank at last, exhausted and water soaked. After a while he began to take an inventory. He felt inside his coat somewhere and his hands struck a sticky, slipperv. mass which bothered him at first. He pulled out his hands and wiped them on his dripping rags. He was startled again, for that mass had made his hands a different color. What could it be? He did not know, except that it was something he had stolen from a box the day before. Later he struck the mass, and again rubbed his hands against his tattered garments. His blood tingled. He rubbed his hands across his face, and in an ecstasy of delight plunged into the creek again, and rubbed that sticky, slippery stuff from head to toe. Something seemed to carry him back to the days when he wore good clothes and was a useful member of society. After drying in the sun he walked the ties to a station house not far away. There he boarded a car with a gang of laborers and begged the foreman for work. That provoked the gang to laughter, but he persisted, and finally became one of their number. In a few weeks his faithful services were rewarded by promotion, but everywhere he went tales of his past proved embarrassing to him, so he severed all old ties, and is living in a distant region under another name.

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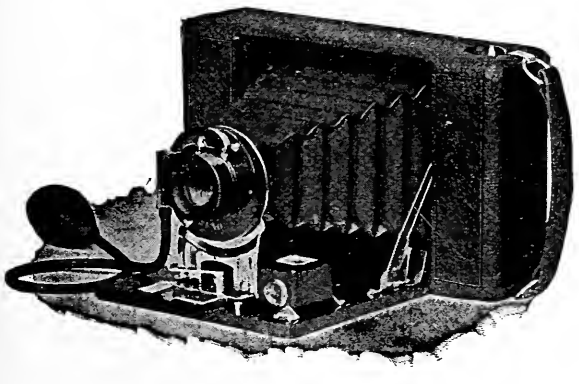

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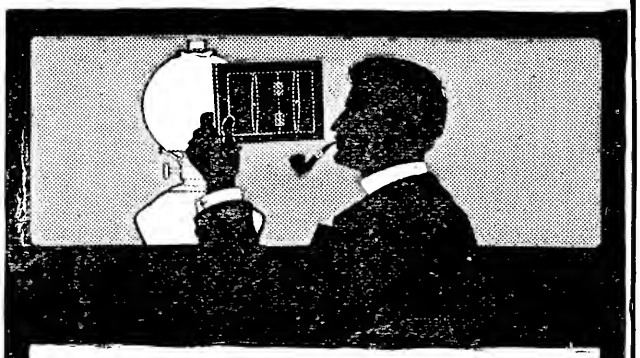

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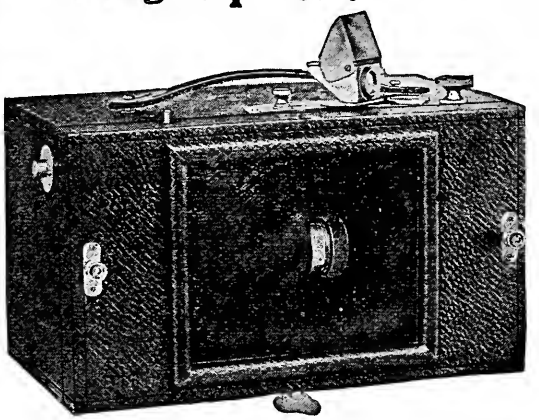

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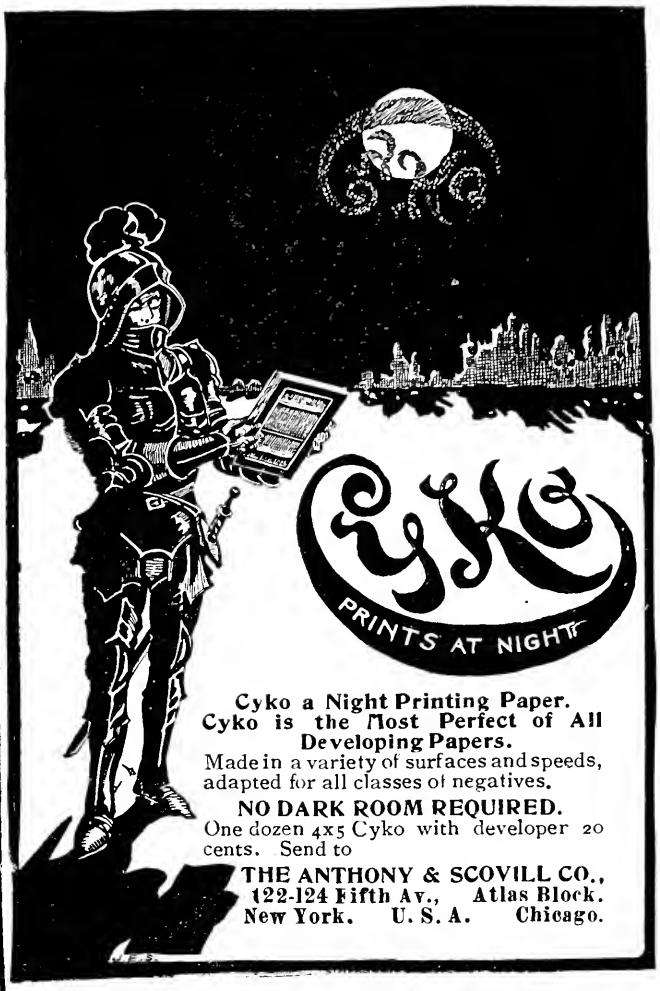

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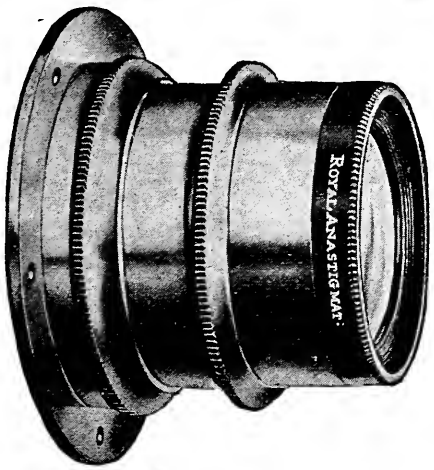

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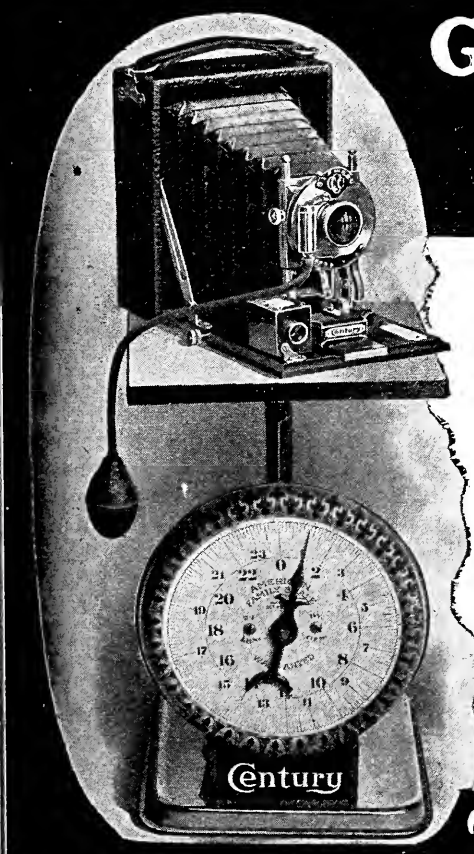

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LOST HIS TROPHIES.

Warren, Minn.

Editor RECREATION:

One morning a cavalcade rode forth from Boone, Minn., on an errand of destruction. Frank Cornman, armed with a 38-70 Winchester and mounted on a good tough sorrel, led the way. I followed, carrying a Savage and riding a roan beast which I was instructed to approach always from the left side and "be kind o' careful of." Not exactly reassuring to a tenderfoot and, moreover, a libel on my nag. She was really a good saddle horse and knew more about antelope hunting than I did. Behind me came Sam and Jake Cornman; the first with a 38-56 Winchester, and the latter with a worn-out Sharps.

Frank and Jake carried, as side arms, each a pair of heavy pliers. The plains here are largely fenced into great pasture lots, of perhaps several sections. When we came to a fence the pliers were used to pull the staples and while 2 of us held the wires down, the others led the nags across. Then we fastened the wires and went on.

Our first antelope was seen about 9 miles out. An hour later Frank got a shot at a buck and broke its back. About that time we saw a band of 6 or 7 making for the sandhills, half a mile away. We gave chase but failed to locate them again. In the hills we routed out a coyote and shot up the sand all around him, but the beast kept on running.

From then on we saw many antelope, probably 50 in all, besides several coyotes and 2 or 3 big grey wolves. I had the satisfaction of being in at the death of one antelope, an old buck that trotted up a ridge where Sam and I sat waiting for him. I think it was a Savage bullet that knocked 6 inches of bone out of one of his hind legs, but I must admit that Sam's shot did the killing. The buck ran 200 yards and was dead when we got to him. His horns were large and heavy but the points were bruised and splintered.

It was then about 4 p.m. and we had gone all day without a drop of water or a bite of food. We went about 4 miles out of our way in the dark, and found a spring where cattle drink.

All through this barren, desolate country, 50 miles from the mountains and I don't know how much farther, there crop out, occasionally, clear, running springs. Some are of soft water, and others alkaline.

We got home at last about 9 o'clock, one of the crowd, at least, nearly "bushed." I had ridden 50 miles, and never rode enough before to learn how. In 2 weeks I recovered so I could sit down to my meals.

Next morning I pulled the skins off the 2 antelope, stripped out the leg bones and skulls, and started for home. I salted the skins and laid them up in a big box to dry, but the darned dogs got to the box, chewed holes in the skins and stole the bones.

H. F. Brown.

AT MICHAEL'S LAST FALL

W. L. FISHER.

After a week of preparation a start was finally made September 16. The party at first consisted of Jim, Charlie Ed, the Doctor and me. Among other things we carried 300 hellgramites and 300 red catfish for bait. I was detailed to keep the latter alive during our journey, and as a caterer to bullheads I did fairly well, losing only 40.

At Portland, Pa., we were joined by Skinner, conceded to be the crack-a-jack angler of his county. It was he who induced us to put up with M. L. Michael, at Calno, N. J. We left the train at Delaware Water Gap and were met by our corpulent and genial host. Five of the boys drove on, leaving Michael and me to bring the bait pail, which had been anchored in the river some distance from shore. When all was in readiness for a start, we went after the bait. Michael stepped into the boat and sat in the stern; I pushed off and jumped in the bow. Our combined weight, 540 pounds, was too much for the boat. She carried us safe to the bottom in 3 feet of water. We disembarked and she reappeared on the surface, none the worse for her trip. After bailing out, I left Michael on shore while I went alone for the bait pail.

The drive to Calno was through a beautiful country. The pike was not entirely smooth, but the weight in our vehicle held it down and we made good time.

Immediately on reaching Michael's we rigged our tackle and sought the river. Trolling is my favorite method of angling, and following it I caught 4 bass before dusk.

As I reached the house the others came trooping along, Skinner in the lead and talking hard. He had proven his ability by taking a 3½ pound fish. It was then 6 o'clock, and at 10.30 he was still telling the rest of us how to catch record breakers.

All the party except me went next morning to Mary's riff, 4 miles up the river. As the weather threatened rain I preferred to fish nearer the house. At the riff the boys caught some big fish; also a wetting. We all cruised up the river the second day, but had little luck. However, when ready to return home after a 4 days' stay, we had 39 black bass running from one to 4½ pounds, and 3 pickerel of nearly 5 pounds each.

Fishing is excellent in the upper Delaware, and there is no better point than Calno.

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"Some time ago, I was making an official visit to a distant part of the country, and took dinner with one of the merchants of the place. I noticed a somewhat peculiar flavor of the coffee, and asked him concerning it. He replied that it was Postum Food Coffee. I was so pleased with it that, after the meal was over, I bought a package to carry home with me, and had wife prepare some for the next meal; the whole family were so well pleased with it that we discontinued coffee and used Postum entirely.

"I had really been at times very anxious concerning my mother's condition, but we noticed that after using Postum for a short time, she felt so much better than she did prior to its use, and had little trouble with her heart and no sick stomach; that the headaches were not so frequent, and her general condition much improved. This continued until she was as well and hearty as the rest of us.

"I know Postum has benefited myself and the other members of the family, but not in so marked a degree as in the case of my mother, as she was a victim of long standing."

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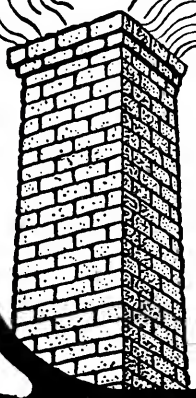
If You Wear a Watch In a Factory or Shop



you should have a Jas. Boss Stiffened Gold Case in order to protect the works and lessen the cost of repairs. The Boss Case is made of two layers of solid gold with a layer of stiffening metal between. It is better than a solid gold case because it is stronger and so close-fitting as to keep out gas, smoke, dust and dampness.

JAS. BOSS Stiffened GOLD Watch Cases

are recognized as the standard the world over, and sold as such by all jewelers. The Boss is the only stiffened case in use long enough to prove by actual wear that they will outlast the 25-year guarantee. There is none "just as good." The Keystone trade-mark here shown is stamped in each Boss case

Consult the jeweler. Write us for booklet.

THE KEYSTONE WATCH CASE COMPANY, Philadelphia

Free; To any person sending me $1 as yearly subscription to RECREATION, I will give one No. 1 Sportsman's Pocket Medicine Case. For 2 subscriptions, a No. 2 Sportsman's or Doctor's Medicine Case. For 10 subscriptions, 500 primed 12 guage Paper Shot Shells. Walter Lusson, Ardmore, Pa.

Here is Another!

If you will send me

40 Yearly Subscriptions

to

RECREATION

I will send you

A No. 10 Goerz Trieder-Binocular Field Glass

Listed at $38.00

Every well-informed man knows the great power of this modern prismatic field glass. It is indispensable to every hunter, and is one of the latest and best on the market.

I have but a few of these instruments on hand and the offer will be withdrawn as soon as the supply is exhausted. Therefore, if you want one

START IMMEDIATELY.

Sample copies of RECREATION for use in canvassing furnished on application.

ARIZONA GAME.

There has been a drought here and quails are scarce. They are not Bob Whites, but blue valley quails, a bird that resembles Bob and is here called fool quail, and a larger variety known as mountain quail. Deer are abundant. Mountain lions, wolves and black bears are in fair numbers. Coyotes and jack rabbits are plentiful. A few peccaries may be found not far from here. The animal I want most of all is plentiful in Mexico, a day's ride from here; and more than plentiful in the Sierra Madre mountains, 200 miles Southwest of here. It is the jaguar, or tiger, as it is called. It is larger than a mountain lion and much more courageous. Have seen some superb hides 9 feet long from tip to tip, rich colors and beautifully leopard marked. Deer are of 3 kinds; whitetail, blacktail and burro deer. There are mountain sheep north of here, and antelope on the deserts. There is plenty of game here, for this is an enormous territory, but it is widely scattered.

The best informed hunters here have 30-30, .303 or 30-40 rifles. The wounds given by these high power rifles are frightful. I shot a deer that was running toward me on lower ground. The 30-30 ball hit him in the back and completely disemboweled him. He stopped exactly on the spot where the ball found him. There has not been water enough to attract many ducks since I have been here, but I got some during the flight last fall. At times there are thousands going through here to the South.

I see a dove here that is new to me. It is about the size of a hedge lark or a catbird, reddish color on wings when finished. Can you name it or refer to anyone who can? R. K. Freeman, Nogales, Ariz.

"THE FANCON"

SPORTSMEN'S POCKET MEDICINE CASE

No hunter's, tourist's or camper's outfit complete without one. It contains 14 medicines all in numerical order with full directions for their uses.

An all leather case, size, 3x5x1 inches. Practically indestructible. Sent on receipt of $1.25 and 6c for postage.

"THE FANCON" CO.,
DETROIT, MICH.

DIVIDENDS

Risk a postal. Send us your name for prospectus of the Rayo Mining and Developing Co. of California. Every dollar invested in these shares will return you regular, handsome, dividends. **MILLIONS** of ore values ready to mine; Electric Water-Power Plant in connection. Not the ordinary mining proposition. Shares now selling at ground-floor price. **Bank References.**

ROANOKE INVESTMENT CO.
541 Marquette Building. Chicago

50¢ SHEET MUSIC 17¢ POST PAID

Uncle Josh's Huskin' Dance. Where the Sweet Magnolia Blooms. Good Morning, Carrie, Song. Hunky Dory Cakewalk Rip Van Winkle, Song.

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THE MYREX MUSIC CO 35 W 21ST ST N.Y.

The Laughlin Fountain Pen

IS THE PEER OF ALL PENS AND HAS NO EQUAL ANYWHERE

Sent on Approval
to Responsible People

YOUR CHOICE OF THESE TWO POPULAR STYLES FOR ONLY

$1.00

Post-paid to any address

By Registered Mail 8c Extra

Superior to the $3.00 Grades of Other Makes

Our Extraordinary Offer

Send us one dollar and we will mail either of these two styles. You can try it for a week—if it don't suit you mail it back to us and we will return your dollar. Ever hear or read of anything fairer?

The Laughlin Fountain Pen holder is made of finest quality hard rubber, is fitted with highest grade, large size, 14k gold pen of any desired flexibility, and has the only perfect feeding device known. Either style richly gold mounted, for presentation purposes, $1.00 extra.

Lay this magazine down and write now.

Laughlin Mfg. Co.
424 Griswold St. DETROIT, MICH.

A LOUISIANA POSSUM HUNT.

When I left El Paso, Texas, to spend the Christmas holidays at my Louisiana home it was with the determination to crowd as much fun as possible into my brief visit. When, therefore, on the day after my arrival, I met a little darky leading 2 dogs, I was perfectly willing to credit his declaration that "Dem houn's are des shuh 'nough bad arter possum."

That same night my 2 brothers and I, the darky and the dogs went possum hunting; Gabe carrying an ax and an armful of lightwood splinters. Within a mile from town the dogs opened up. Gabe said they were after a coon.

"How do you know?" I asked.

"Huh! By de way dey bark," he replied.

A coon it must have been; anyway, it led the hounds clear out of hearing. We built a fire, sat down on a log and waited. In about an hour the dogs returned, and we struck out again. Soon they treed. We chopped open a hollow tree and found only a rabbit.

It was past 12 and we were 4 miles from home. Tired and angry, we started back, and had gone half way when the dogs gave tongue again.

"Whoop 'em up, boys!" cried Gabe. "Dar's possum dar shuh; yes, sar, dar shuh is!"

Away we all went through the thick underbrush, Gabe's smoking lightwood torch revealing impeding objects just in time for us to run into them. I vowed to myself that if the dogs fooled us again they should at least catch the limber end of a gad.

However, they led us to a possum, and it was; a small tree, too. We shook him down—as plump a ring-tailed rascal as I ever saw. Gabe's mouth fairly watered as he said:

"Dat dar possum shuhly gwine be good eatin'."

I had a mind to test that point myself, so when Gabe left us I slipped something white and shining into his hand and took possession of the game.

"You am shuh a gem'men, ef you does libe in Texas, where dey skulps folks," was his acknowledgment as he trudged homeward.

Brer Possum, served with sweet potatoes, a la Aunt Dinah, proved fully worthy of Gabe's encomium.

I. J. Brush, El Paso, Tex.

UNMOUNTED PHOTOGRAPHS

I will pay cash or give liberal exchange for interesting unmounted photographs, any size. either amateur or professional. **Wilfred S. Tilton, Prairie Depot, Ohio.**

IF YOU WOULD LIVE NEXT TO NATURE, READ RECREATION.

The MAN and the HOUR meet by the time of an

Elgin Watch

Punctuality's watch word is *Elgin.* Worn everywhere; sold everywhere; guaranteed by the world's greatest watch factory. Booklet mailed free.

ELGIN NATIONAL WATCH CO.
ELGIN, ILLINOIS.

OIL--SMELTER--MINES!

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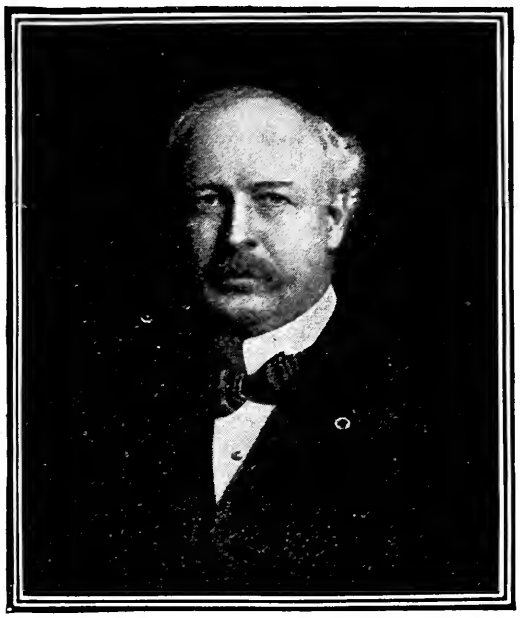

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The Master Specialist of Chicago, who Cures Varicocele.
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Cured to Stay Cured in 5 Days.
No Cutting or Pain. Guaranteed Cure or Money Refunded.

VARICOCELE Under my treatment this insidious disease rapidly disappears. Pain ceases almost instantly. The stagnant blood is driven from the dilated veins and all soreness and swelling subsides. Every indication of Varicocele vanishes and in its stead comes the pleasure of perfect health. Many ailments are reflex, originating from other diseases. For instance, innumerable blood and nervous diseases result from poisonous taints in the system. Varicocele if neglected will undermine the physical strength and depress the mental faculties, derange the nervous system, and ultimately produce complicated results. In treating diseases of men I always cure the effect as well as the cause. My method of treatment is safe and permanent.

Certainty of Cure is what you want. I give a Legal Guarantee to cure you or refund your money. What I have done for others I can do for you. **I CAN CURE You at Home.**

Correspondence Confidential. Write me your condition fully and you will receive in plain envelope a scientific and honest opinion of your case, **Free** of charge. My home treatment is successful. My books and lectures mailed free upon application.

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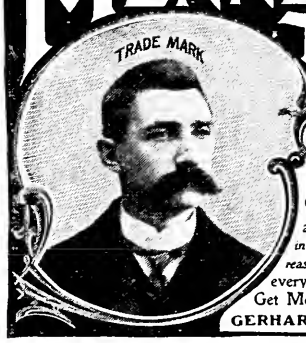
MENNEN'S BORATED TALCUM TOILET POWDER



A Positive Relief For CHAPPED HANDS, CHAFING, and all afflictions of the skin. *"A little higher in price, perhaps, than worthless substitutes, but a reason for it."* Delightful after shaving. Sold everywhere, or mailed on receipt of 25 cents. Get Mennen's (the original). *Sample free.*
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For Men and Women. If you are well and strong we can instruct you in a few months. Instruction by mail or at our Institute. Six private tutors, graduates from Yale and Hungarian universities. We have no trouble in finding positions for our graduates. Free instruction by mail (the only cost being postage and instruction papers while you are studying with us). Write for finely illustrated prospectus of our Institute. MAC LEVY INSTITUTE OF PHYSICAL CULTURE, Correspondence Dept. O., Hotel St. George, Brooklyn, N. Y

FREE BOOK, WEAK MEN

My illustrated nature book on losses, varicocele, impotency, lame back, free, sealed, by mail. Much valuable advice and describes the new DR. SANDEN HERCULEX ELECTRIC BELT. Worn nights. No drugs. Currents soothing. Used by women also for rheumatic pains, etc. 5,000 cures 1901. Established 30 years. Advice free.
DR. G. B. SANDEN, 1155 Broadway, N. Y.

One Way to Develop Muscle

IS TO

PUT ON THE GLOVES

with some lively, vigorous chap. I have made an arrangement which enables me to offer

A Pair of Boxing Gloves

LISTED AT **$6.00**

For 5 Yearly Subscriptions to

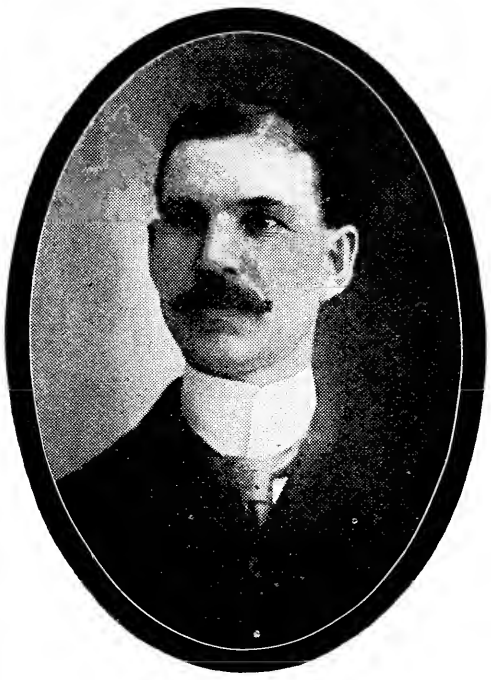
RECREATION

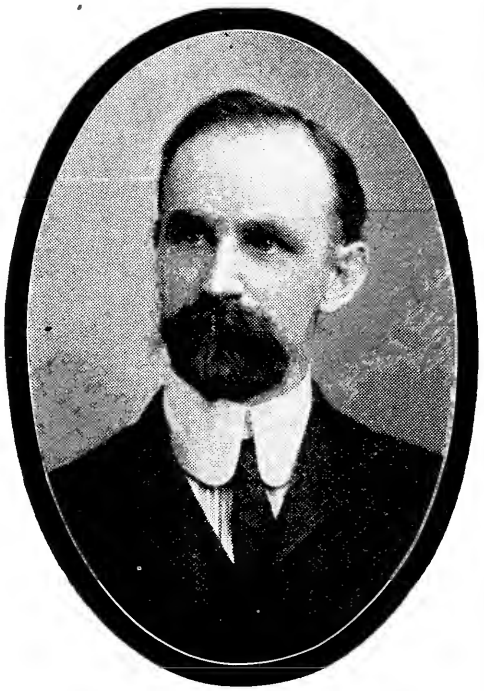
If you want a pair of these useful appliances why not put in 30 minutes in getting 5 subscriptions, thus making your friends pay for the gloves.

Sample copies of **RECREATION,** for use in soliciting, furnished on application.

Blood Poison Cured Free

The Remedy is Sent Absolutely Free to Every Man or Woman Sending Name and Address.





Chief of Staff and Head Consulting Physician of the State Medical Institute.

A celebrated Indiana Physician has discovered the most wonderful cure for Blood Poison ever known. It quickly cures all such indications as mucous patches in the mouth, sore throat, copper colored spots, chancres, ulcerations on the body and in hundreds of cases where the hair and eyebrows had fallen out and the whole skin was a mass of boils, pimples and ulcers, this wonderful specific has completely changed the whole body into a clean, perfect condition of physical health.

Wm. McGrath, 48 Guilford Street, Buffalo, N. Y., says: "I am a well man to-day where a year ago I was a total wreck. Several doctors had failed to cure me of blood poison. I was rid of my sores and my skin became smooth and natural in two weeks, and after completing the treatment there was not a sore or pimple on my body, and to-day I am absolutely well."

Every railroad running into Ft. Wayne brings scores of sufferers seeking this new and marvelous cure and to enable those who cannot travel to realize what a truly marvelous work the doctor is accomplishing they will send free to every sufferer a free trial package of the remedy so that everyone can cure themselves in the privacy of their own home. This is the only known treatment that cures this most terrible of all diseases. Address the State Medical Institute, 3929 Elektron Building, Ft. Wayne, Ind. Do not hesitate to write at once and the free trial package will be sent sealed in plain package.

Her Marvelous Growth of Hair

All can have it by simply sending for a trial package of a new and wonderful remedy mailed free to convince people it actually grows hair, stops hair falling out, removes dandruff and quickly restores luxuriant growth to shining scalps, eyebrows and eyelashes. Send your name and address to the Altenheim Medical Dispensary, 6590 Butterfield Building, Cincinnati, Ohio, for a free trial package enclosing a 2-cent stamp to cover postage. Write to-day.

SPECIAL FREE OFFER

To any person sending me $1.00 for one year's subscription to RECREATION I will give free a choice of the following: 50 fine Bristol Cards printed to copy in Gold Ink; or 50 Envelopes printed with return card and a cut representing an angler. With the words "If you don't catch him in 10 Days return to ;" or 50 Noteheads neatly printed. Write plainly to avoid mistake in printing. Samples of printing for stamp. Or I will give free a Bottle of Silver Plating Fluid for plating all kinds of metal surfaces; or a Bottle of White Rose Cream for the complexion. Either new or old subscribers may take hold of this offer. Send money by registered letter. Address

HENRY NELSON, ECKVOLL, MINN.

FREE To each person sending me $1. (P.O. Money order) for one year's subscription to RECREATION, I will send his choice of the following.

A **Genuine Briar Pipe** with **Genuine Amber Bit, or a Braided Leather Dog Whip** with snap on end, or a **Polished Steel Dog Chain** with swivels, snaps, etc., or a **MacMillan Shell Extractor** for any size of shell from 8 guage to 22 calibre, or a **Pocket Compass,** 1 in. dial, open face, watch shape, with ring handle, bevel crystal.

EDWARD S. ADAMS, Box 536, Manchester, N.H.

FREE To everyone who will send in a subscription to RECREATION through me I will give, free, a photo of the late President McKinley; or of the Esplanade, or any of the buildings at the Pan-American Exposition. These photos are all on Velox or Aristo paper. The one of President McKinley was made September 6th, the day he was shot. All prints perfect. F. E. WILKINSON.
172 Woodlawn Ave., Buffalo, N. Y.

Don't Be Too Fat

Don't ruin your stomach with a lot of useless drugs and patent medicines. Send to Prof. F. J. Kellogg, 1165 W. Main St., Battle Creek, Michigan, for a free trial package of a treatment that will reduce your weight to normal without diet or drugs. The treatment is perfectly safe, natural and scientific. It takes off the big stomach, gives the heart freedom, enables the lungs to expand naturally, and you will feel a hundred times better the first day you try this wonderful home treatment.

I am much pleased with the King canvas folding boat received as a premium for the 5 subscriptions I sent you. Have given it a good test and can cheerfully say it is as safe and as easy a running boat as I wish to ride in. There are many in use in this vicinity and all give perfect satisfaction. I feel well repaid for my work, and thank you most cordially for kind and upright treatment.

Joe Hyman, Kalamazoo, Mich.

I received the Forehand revolver you sent me as a premium and I am greatly pleased with it. What surprised me most is the quality of the premiums you give for so small a number of subscriptions. I have taken RECREATION 2 years and have never seen a sportsman's magazine that could hold a candle to it.

A. M. Kelly, Tarrytown, N. Y.

The Marble safety pocket axe, just received, is a beauty. Do not see how you can give such a valuable prize for so few subscriptions. I have had 10 years' experience hunting in the West and in Canada, but have not seen its equal for a pocket axe.

B. J. Livermore, Newark Valley, N. Y.

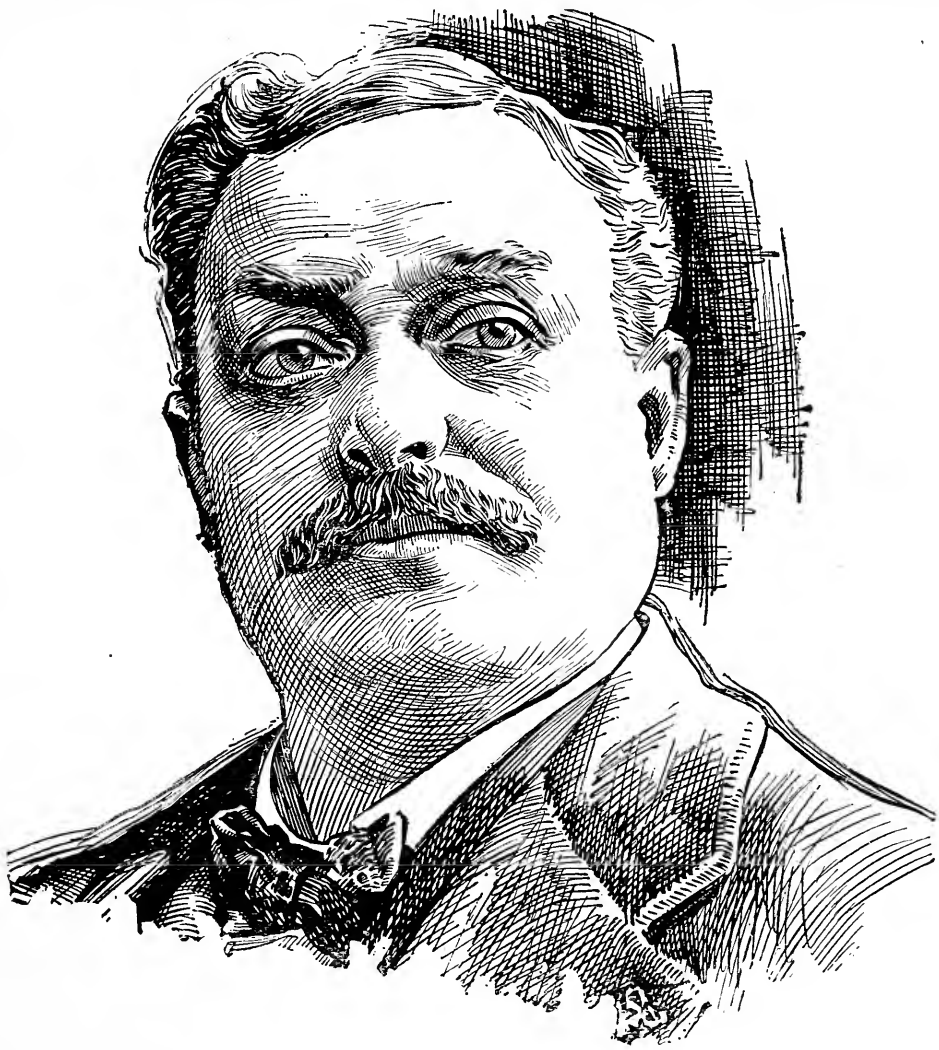
IF YOU WOULD LIVE NEXT TO NATURE, READ RECREATION.

Consumption Quickly Cured

Marvelous Discovery by the Famous Dr. Yonkerman, of Kalamazoo, Mich.—State Officials and Great Medical Men Pronounce It the Only Genuine Cure for Consumption and Lung Troubles.

Consumptives Given up to Die and Sent Back from California Hopeless and Helpless are Now Alive and Well through this Wonderful Cure for Consumption.

A Free Package Containing Sufficient to Convince the Most Skeptical Sent Prepaid to All Who Write.



DR. D. P. YONKERMAN, the Discoverer of Tuberculozone, the only Cure for Consumption.

Consumption can at last be cured. Marvelous as it may seem after the many failures, a sure, positive and certain cure for the deadly consumption has at last been discovered by Dr. Derk P. Yonkerman, a great Michigan doctor who has made a life study of this fatal disease. His wonderful remedy has been fully tested and rigidly proven a sure cure by state officials, and noted medical men all over the world testify to its power to kill the dread germ that causes consumption. The doctor makes no secret of the ingredients of his wonderful cure, believing that the people are entitled to such a production of science, and he is sending free treatments all over the world, bringing joy of knowledge of certain rescue from this awful, fatal disease. Such eminent scientists as Koch, Luton, Pasteur and all the great medical and germ specialists and chemists have already repeatedly declared that the consumptive germ cannot live a minute in the presence of the ingredients of this wonderful remedy that has already revolutionized the treatment of consumption and has taken it from the catalogue of deadly fatal diseases and placed it in the curable list. Free trial packages and letters from grateful people—former consumptives rescued from the very jaws of death are sent free to all who write to Dr. Derk P. Yonkerman, 731 Shakespeare Building, Kalamazoo, Mich. Dr. Yonkerman wants every consumptive sufferer on the face of the earth to have this marvelous and only genuine cure for consumption. Write to-day. It is a sure cure and the free trial package sent you will do you more good than all the medicines, cod-liver oils, stimulants or changes of climate and it will convince you that at last there has been discovered the true cure for consumption. Don't delay—there is not an hour to lose when you have consumption, throat or lung trouble. Send to-day for Free trial package

STILL ANOTHER GREAT OFFER

Send me 40 yearly subscriptions to RECREATION and I will send you

No. 1 Double Barrel, Hammerless, Breech Loading Gun

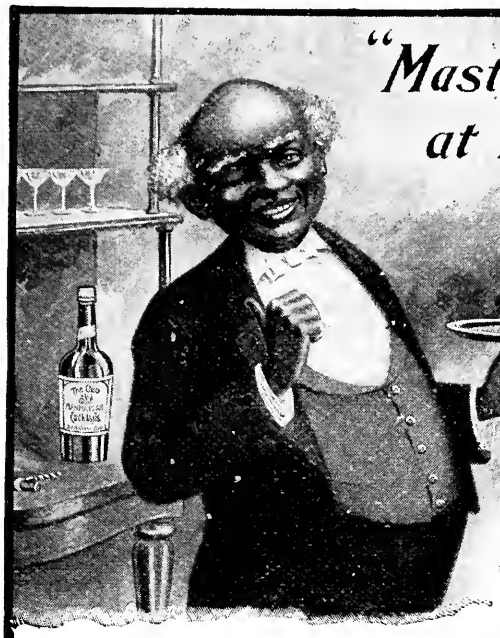
Made by the Ithaca Gun Co. and Listed at $40

I have contracted for 20 of these guns at a price which enables me to offer them as above, and they will doubtless all be taken within the next 3 months.

If You Want One Get Busy at Once

Sample copies of RECREATION for use in canvassing furnished on application

RECREATION, 23 West 24th St., New York.



"Master thinks I'm a dandy at mixing cocktails."

CLUB COCKTAILS

YOU can do it just as well

Pour over lumps of ice, strain and serve

SEVEN KINDS *BEWARE OF IMITATIONS*

G. F. HEUBLEIN & BRO.

HARTFORD **NEW YORK** **LONDON**

I received the Yawman & Erbe reel and the Harrington & Richardson revolver, which you sent me as premiums. I have tried the reel; it works to perfection. The revolver also is far above my expectation. A Marble gaff hook and a Bristol steel rod, obtained through RECREATION, complete my fishing outfit. I thank you for all the premiums I have received.

George F. Hutton, Cadillac, Mich.

Kindly accept my thanks for that beautiful basket you sent me; it is one of the most useful articles in my fishing outfit. I do not see how you can afford to give it to me for so little work.

C. Degner, Milwaukee, Wis.

The Pooler cartridge belt you sent me for subscriptions to RECREATION is O. K. All my friends think it one of the best of its kind. I thank you sincerely for it.

H. B. Olson, Naugatuck, Conn.

Received the Harrington & Richardson shot gun and have tried it. It is perfectly satisfactory. Am also much pleased with RECREATION.

Allan S. Irwin, Belvidere, Ill.

Whiskey Free.

One Quart Bottle of Miss Chicago 15-Year-Old Rye or Bourbon Whisky Free to All, Charges Prepaid.

This Free Offer is Made Regardless of Cost to Quickly Introduce this Celebrated Whiskey in Every City, Town and Hamlet in the U. S.

(TRADE MARK) MISS CHICAGO.

Send your name and address to the Malcolm Distilleries Co., 324 Robey & Madison Sts., Chicago, Ill. The above offer is genuine. They ask no questions or references of any kind; all who write will be given a quart bottle of Miss Chicago Rye or Bourbon Whiskey, whichever you prefer, absolutely free, all charges prepaid. Remember this offer is only open for those who would like to buy Miss Chicago Whiskey by the gallon in case the free quart proves satisfactory. Write to-day. We want every lover of good whiskey to give it a trial.

J. M. Hanson's Clubbing Offers

LEXINGTON, KY.

Four Leading Magazines, only $2.25

Sent to one or different addresses. The periodicals in any combination offer may be sent to one or different addresses. Join with your friends and take all. The subscriptions may be either new or renewals except where otherwise stated. All subscriptions are for one full year.

RECREATION, 1 yr. . . $1.00
Cosmopolitan, 1 yr. . . 1.00
The Era or Everybody's may be substituted.
Frank Leslie's Monthly, 1 yr. 1.00
The American Boy may be substituted.
The Nickel Magazine, 1 yr. . .50
A magazine full of good short stories.

All Four One Full Year $2.25 (Personal Checks Accepted)

A $1.00 Offer Recreation and Nickel Magazine the two, only $1.00

Recreation.....$1.00 } Send us only
Outing, (new Sub)..... 3.00 } $4.00
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Recreation.....$1.00 } Our Price
Country Life in America .. 3.00 } $3.25
World's Work may be substituted.
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Recreation.....$1.00 } Send us Only
Review of Reviews..... 2.50 } $3.25
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Recreation, Leslie's Monthly and Cosmopolitan	3.00	$2.00
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Recreation, American Boy, Cosmopolitan and Vick's Magazine	3.50	2.25
Recreation, Judge (weekly) and Public Opinion (new sub.)	9.00	5.00
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Recreation, Woman's Home Companion, Cosmopolitan and Leslie's Mo.	4.00	2.50

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with Nickel Magazine and Vick's.....	$1.50
with Nickel Magazine and American Boy	1.75
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with Cosmopolitan and Harper's	4.75
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The American Boy or Leslie's Monthly may be substituted for Cosmopolitan in all offers.

Youth's Companion (including all extra numbers and calendar for 1903) may be added to any of our offers for $1.75 additional. Pearson's Magazine, $1.00; Ladies' Home Journal, $1.00; Saturday Evening Post, $1.00; McClure's, $1.00; Delineator, $1.00; Munsey's, $1.00; St. Nicholas, $2.65; Harper's, $3.35; Century, $3.60.

Free If you will send us three orders for any of the above combinations, you may have free, as your premium, a yearly subscription to Cosmopolitan or American Boy or Leslie's Monthly or Success or Everybody's. Your own club, and two other clubs make the three orders.
REFERENCES: The Bradstreet Agency, R. G. Dun & Co., All Publishers, Phoenix National Bank, Lexington, Kentucky.

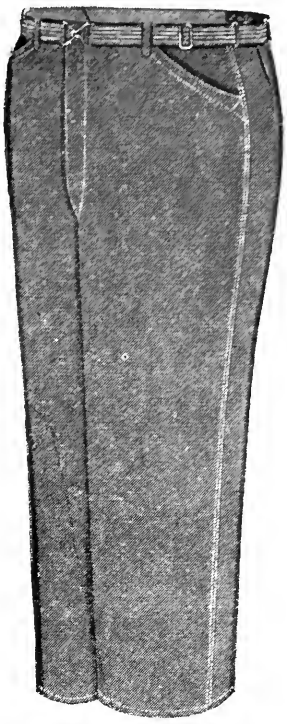
Club raisers and agents wanted to take orders for our combination offers. Our catalogue for 1903 of 3,000 periodicals is free. Ask for it. Address all orders to

J. M. HANSON, MAGAZINE AGENCY,

120 HANSON BLOCK, - - . LEXINGTON, KENTUCKY.

CONLEY MFG. CO., St. Joseph, Missouri Notice our Prices

Ordinary Field Coat, Corduroy Collar and Cuffs $2.75



Conley Combination Coat, Vest and Duck Blind, $5

Field Trousers, Adjustable Belt, $1.50
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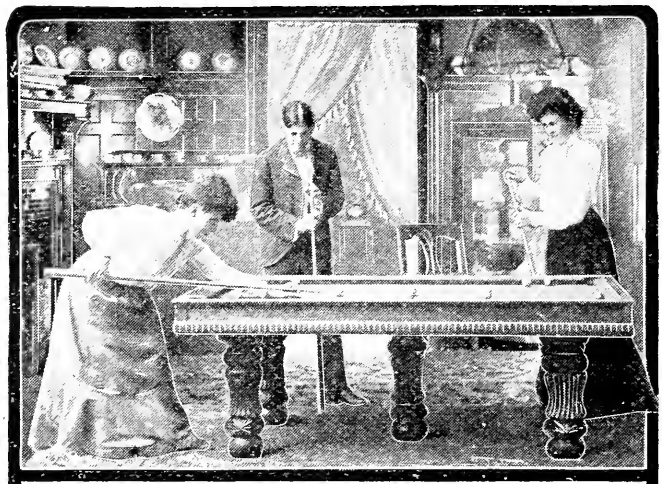

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makes *good billiards* possible in your own home. Equal to a $500 billiard table. Bed of superior Vermont slate; quick, live, sensitive cushions; accurate angles. Best French billiard cloth; true balls; cues well balanced. Experts endorse it. None better for library or dining room.

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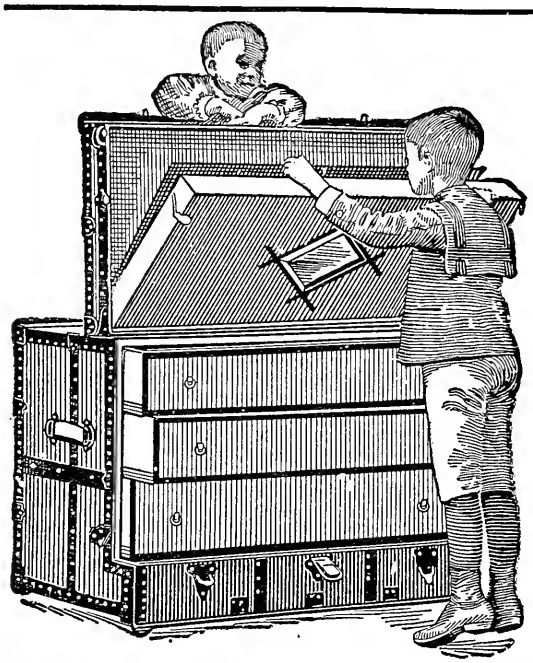

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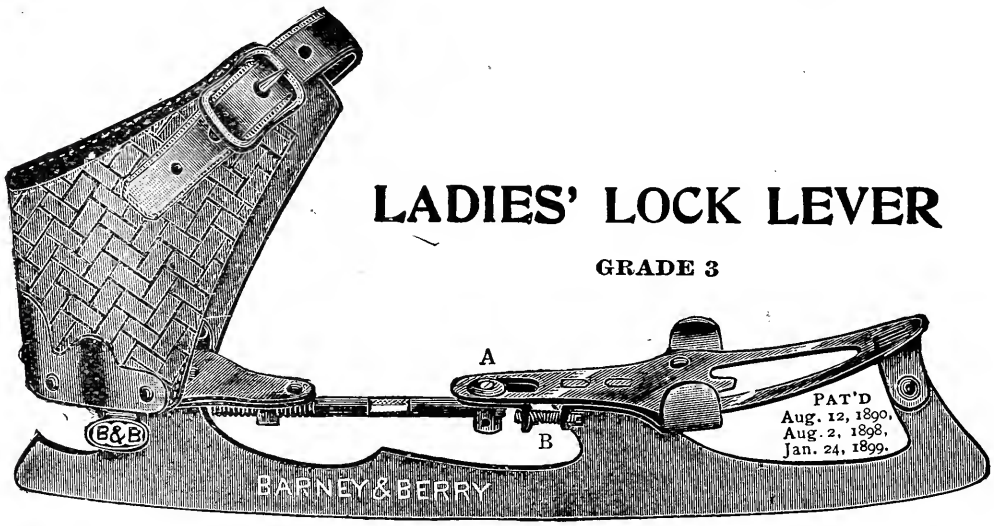
For Holiday Presents

For your best girl, or your brother, or for some other girl's brother, or for any one you love, and who is fond of skating



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A pair of Lock Lever Skates

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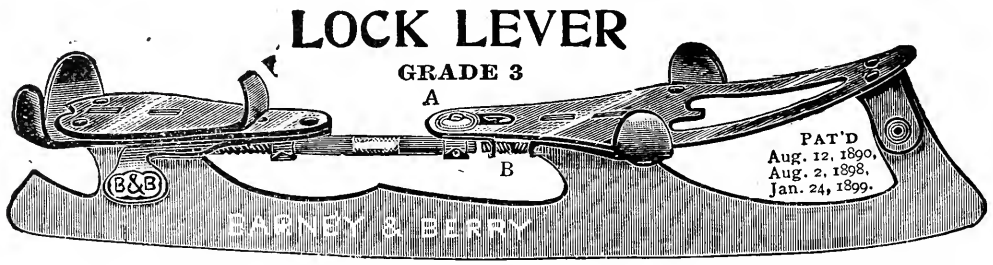
Grade 3, made by Barney & Berry, Springfield, Mass.



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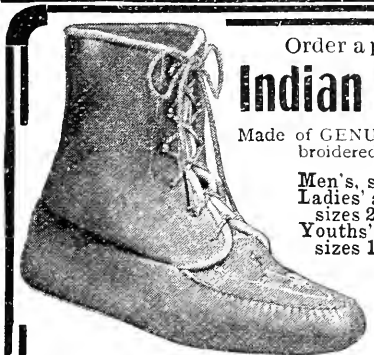
President playing cards unique, entertaining, instructive. Ask your dealer.



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Write for Catalogue No. 20. Everything in Rubber.

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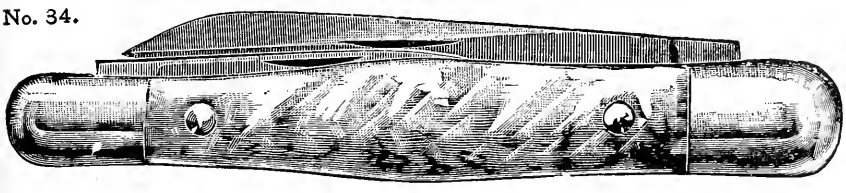

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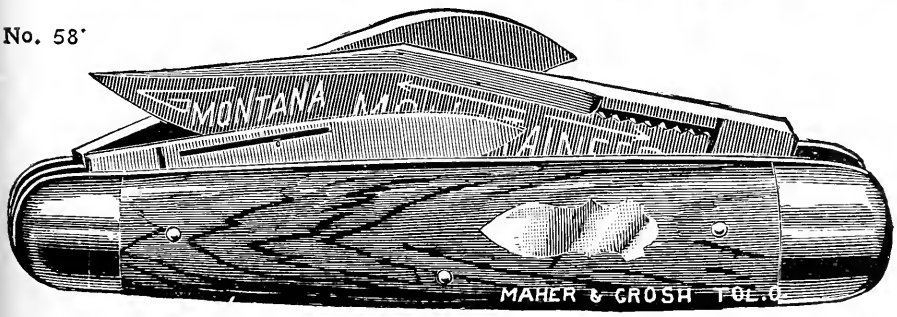

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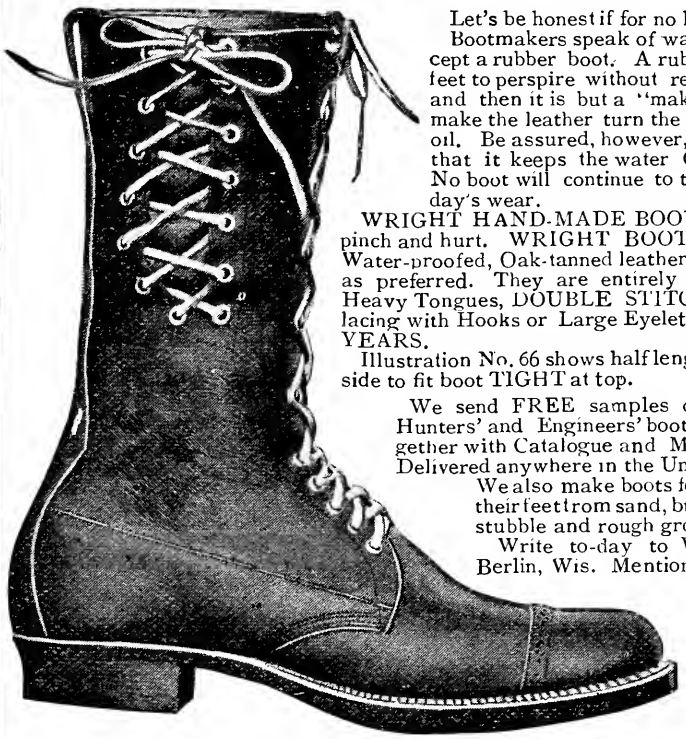

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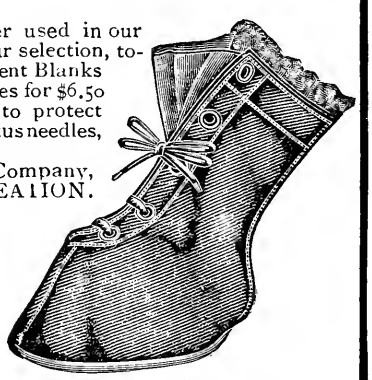

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Go on like a glove and fit all over.

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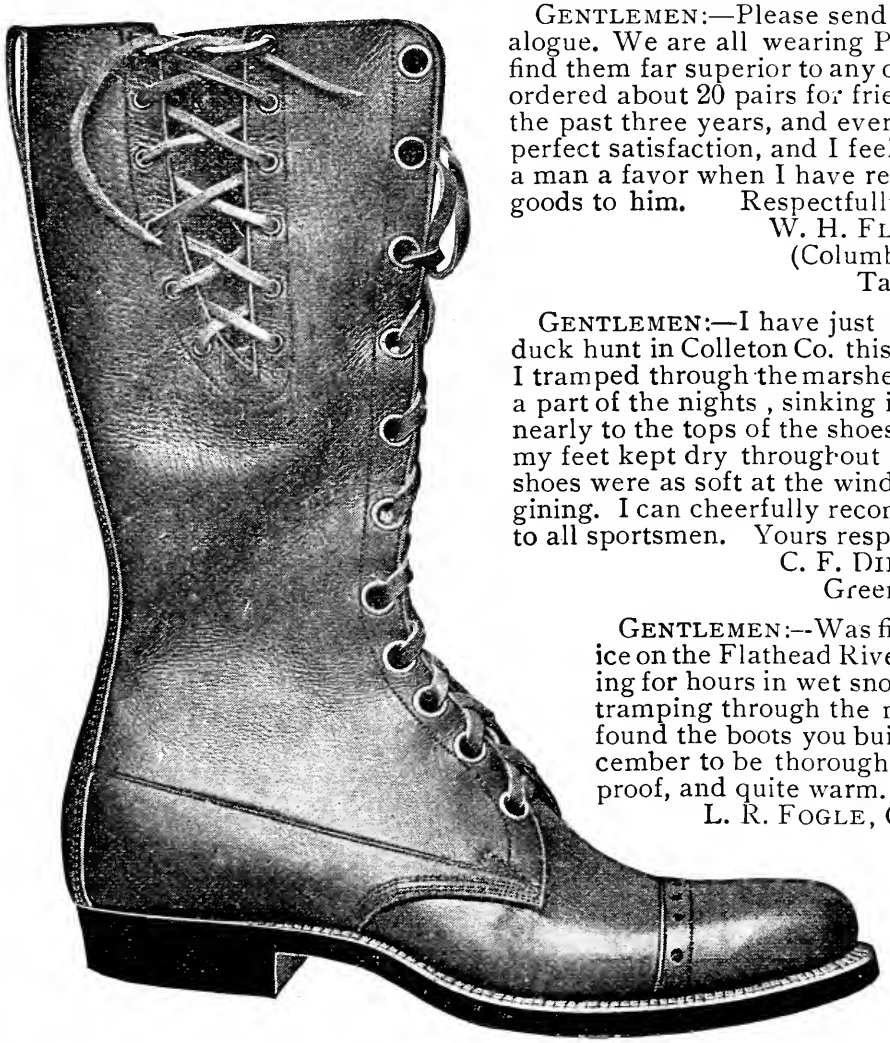

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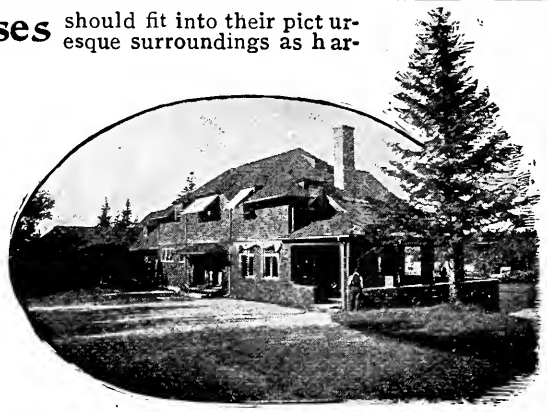

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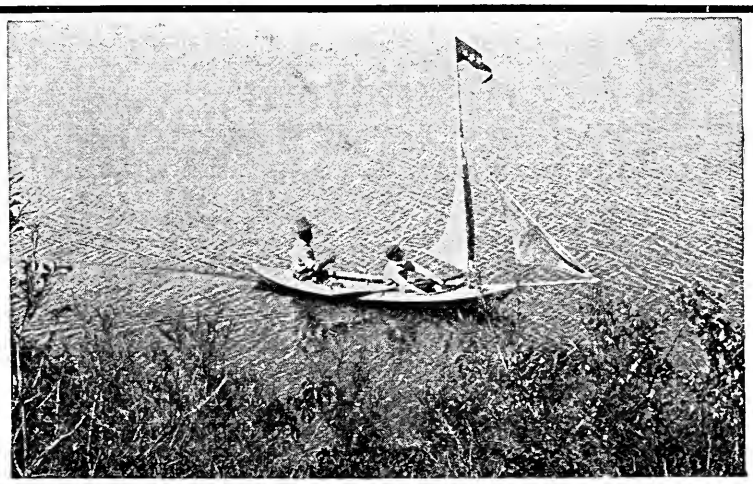

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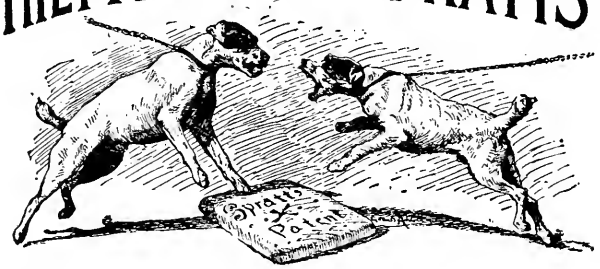

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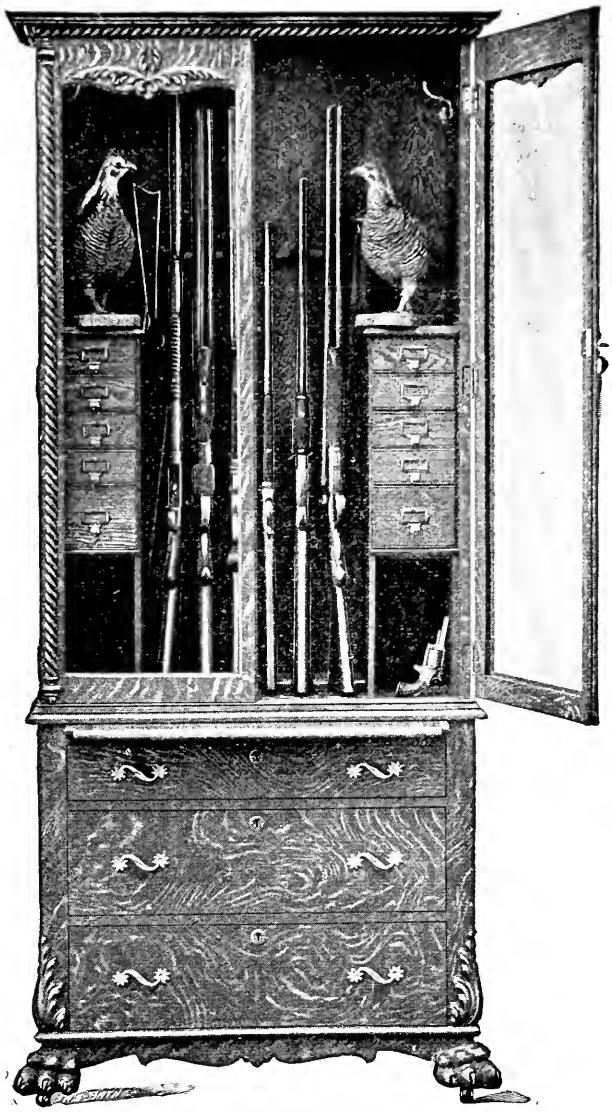

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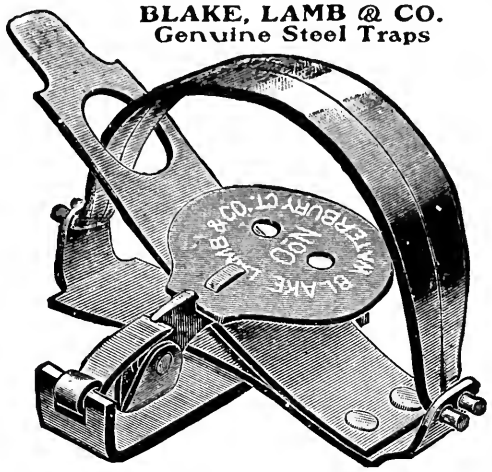

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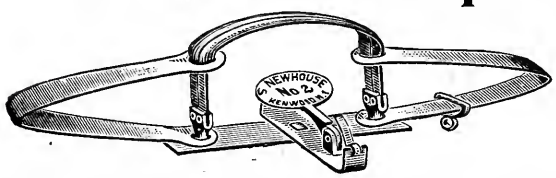

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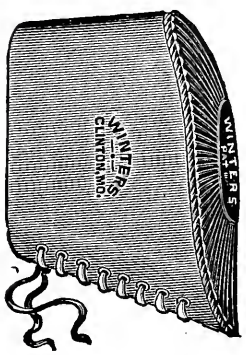

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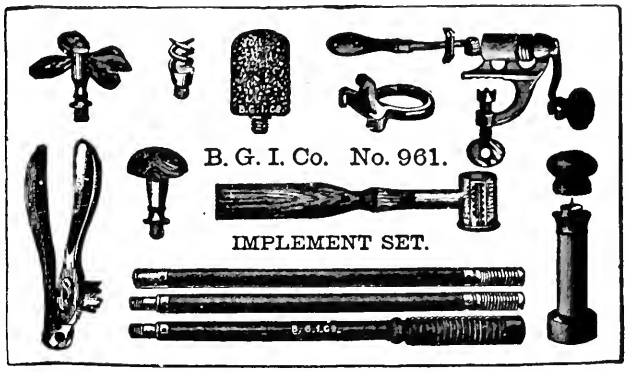

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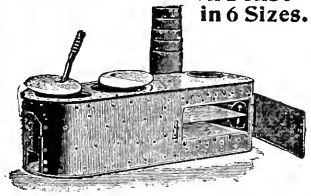

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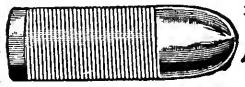

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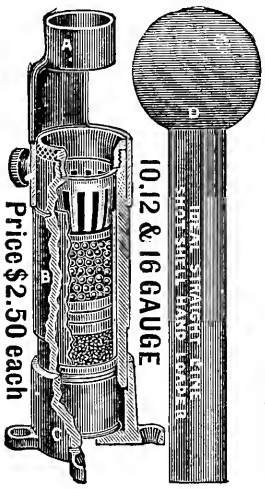

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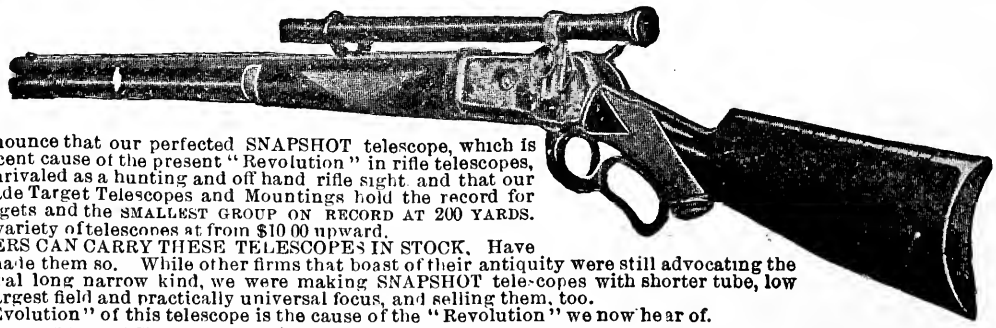

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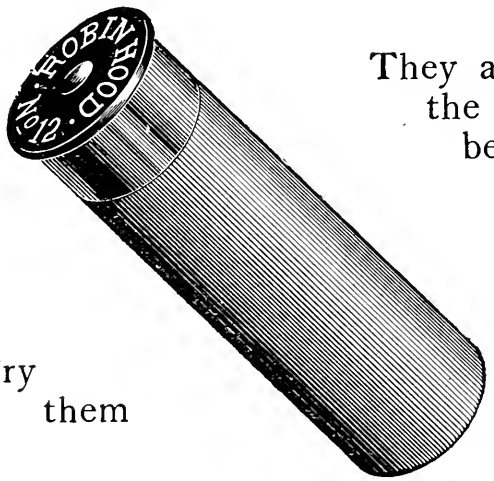

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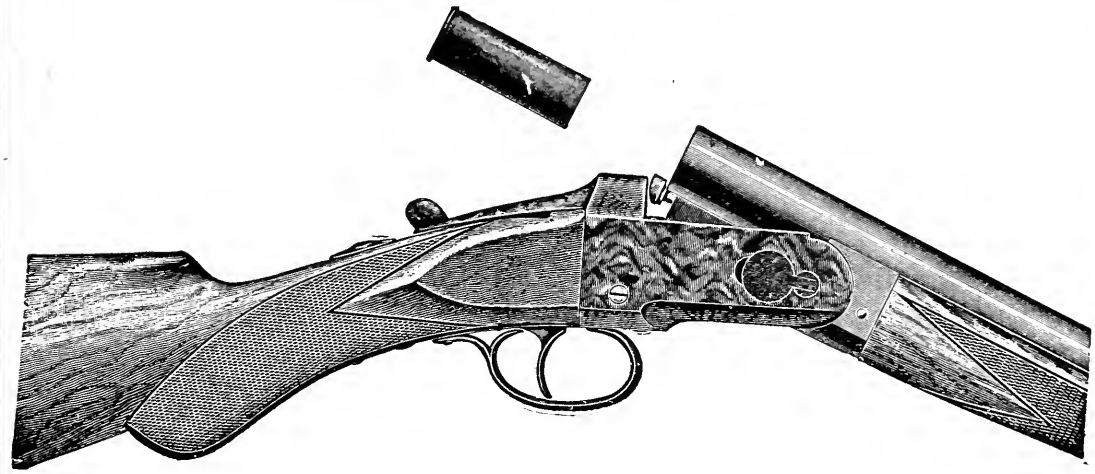

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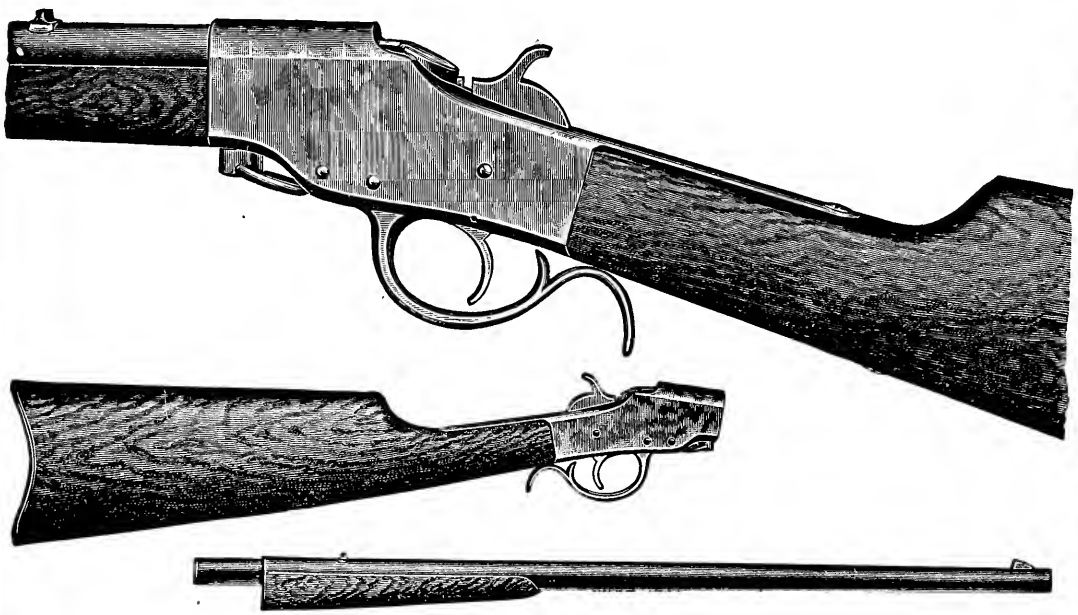

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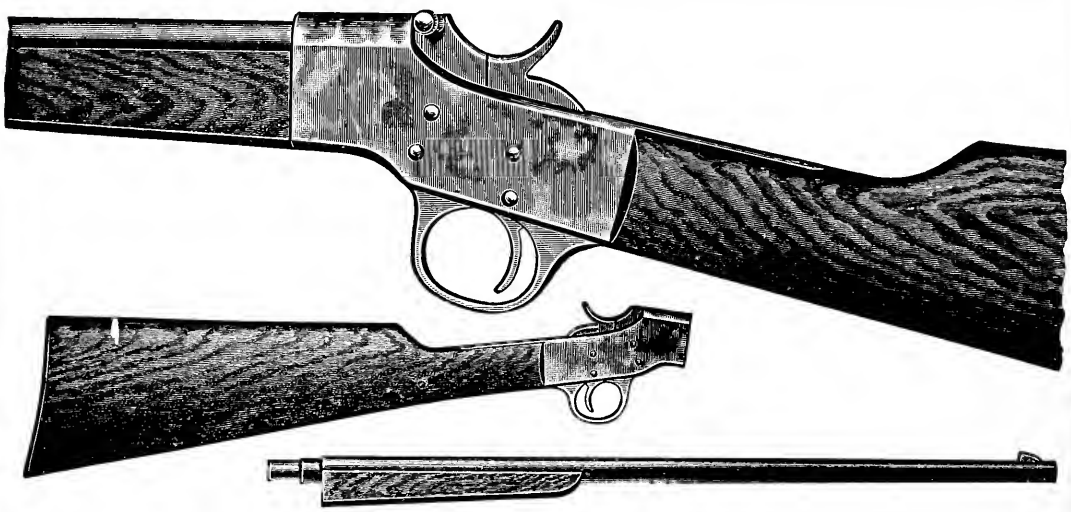

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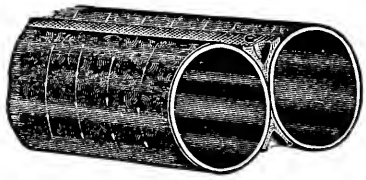

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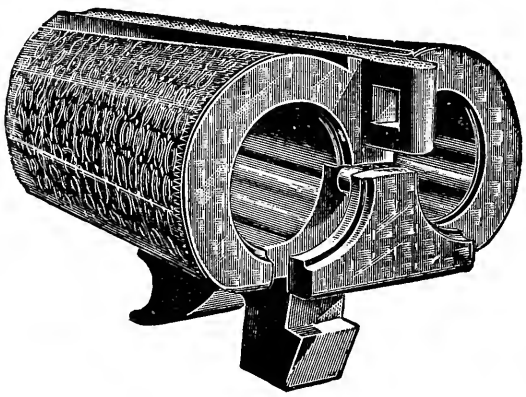

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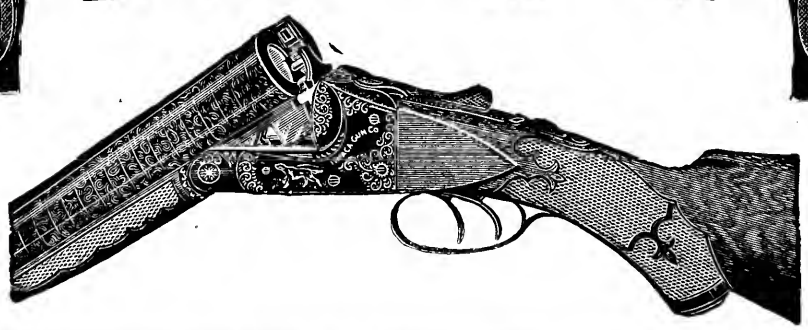

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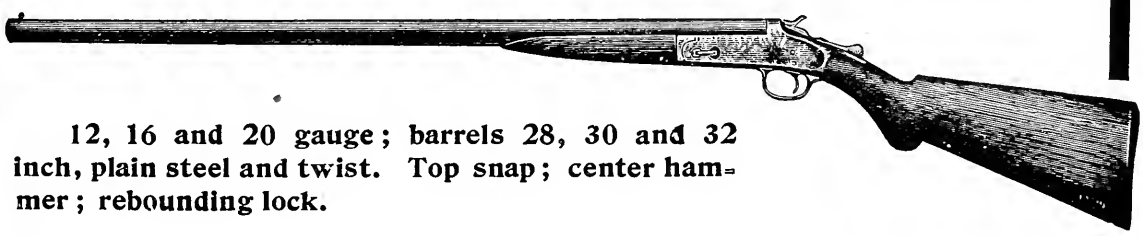

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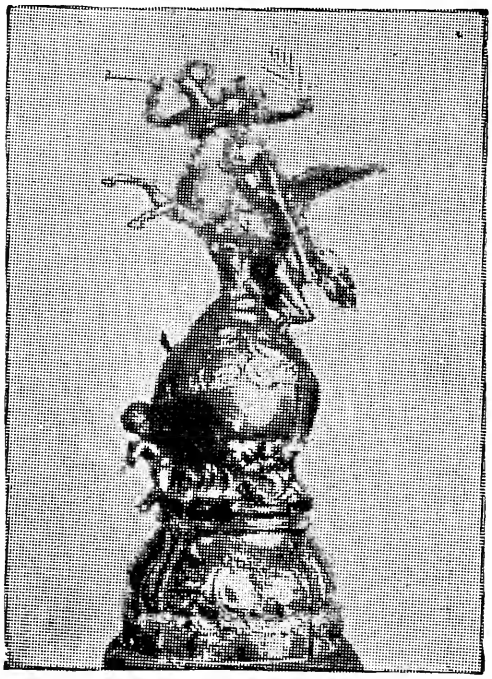

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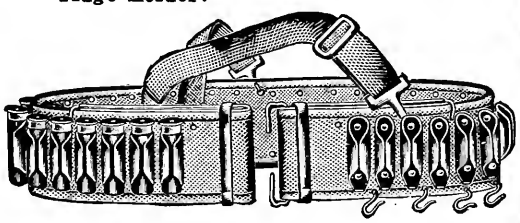

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I have only one of these guns, and so the first man who sends me the $75 will get it. Others who may try for the gun and be too late can get for their clubs a Syracuse, Ithaca, Parker or Remington gun, of as high grade as I can afford to furnish.

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At Spirit Lake, Ia., Aug. 6th, 1902

Events	15	15	20	15	15	20	15	15	20	15	15	20—200
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The above score was made by

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And to Whom Shall I Send it?

That is all I ask — just a postal card. Just the spending of a penny to aid a sick friend.

He or she is your friend — and a stranger to me. Yet, if you merely tell me his name, I will gladly do this:

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And the sick one's mere word shall decide it.

Could I meet you — for even ten minutes I would forever convince you that I have what these sick ones need. More than that; I have that without which most of them can never get well.

I would overwhelm you with evidence — irresistibly convincing. You would go away and tell all your sick friends about it.

But I can meet only a few, so I have put what I know in six books. And I take this means to ask you who needs those books.

Could you meet me, I believe you would willingly take my word.

But you cannot — so I take yours.

I trust to your honesty. Make the test at my risk, and I will pay, or you can pay, just as you decide.

Can you conceive of a sick one who will neglect an offer like that?

I can afford the offer because failures are few. They occur only when there are causes — like cancer — which medicine cannot cure.

I have furnished my Restorative to hundreds of thousands in this way, and 39 out of 40 have cheerfully paid — because they got well. I pay just as willingly when one says I have failed.

I don't want the money of the hopeless.

My Restorative forms the only way to strengthen the *inside* nerves. It is my discovery — the result of a lifetime's work.

Instead of doctoring the weak organs, I doctor the cause of their weakness. I bring back the nerve power which alone makes the vital organs act. There is no other way to make any weak vital organ do its duty long.

Won't you write a postal that some sick friend may learn about a remedy like that?

Simply state which book you want, and address Dr. Shoop, Box 214, Racine, Wis.

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Mild cases, not chronic, are often cured by one or two bottles. At all druggists.

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A CLEAN, HEALTHY SCALP

is insured by an occasional shampoo with FAIRBANK'S GLYCERINE TAR Soap. It cleanses and heals the scalp—makes the hair soft and glossy—promotes its growth, preserves its color and prevents dandruff. It instantly produces a rich, creamy lather in hard or soft water and imparts a delightfully refreshing sense of cleanliness. FAIRBANK'S GLYCERINE TAR Soap, soothes, heals and keeps the skin soft and velvety. Its antiseptic properties render it the most healthful Soap made. It removes dirt, grease and grime like magic.

FAIRBANK'S GLYCERINE TAR Soap contains pure glycerine and pine tar and has an odor **"Like a Breath from the Pines."**

If your grocer doesn't have it in stock, we will mail a free sample cake, postpaid

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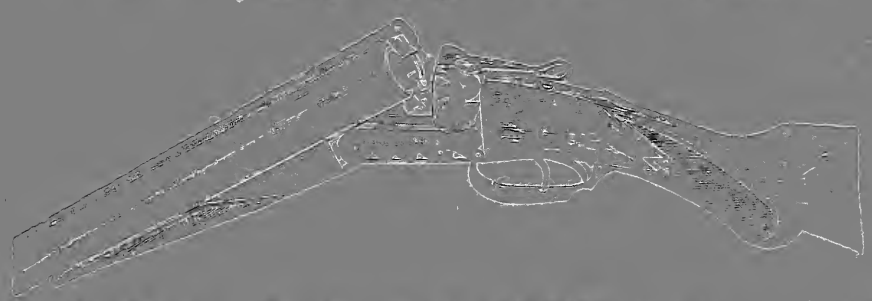

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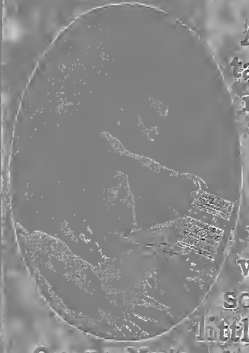

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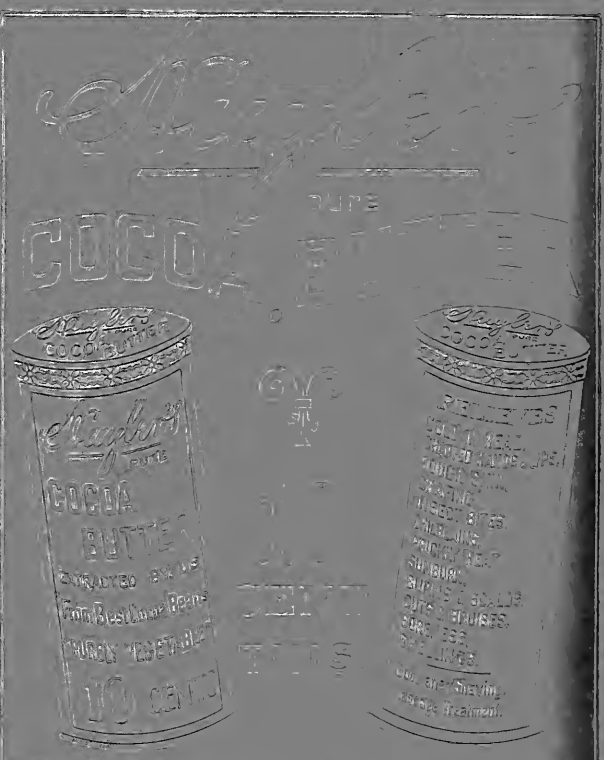

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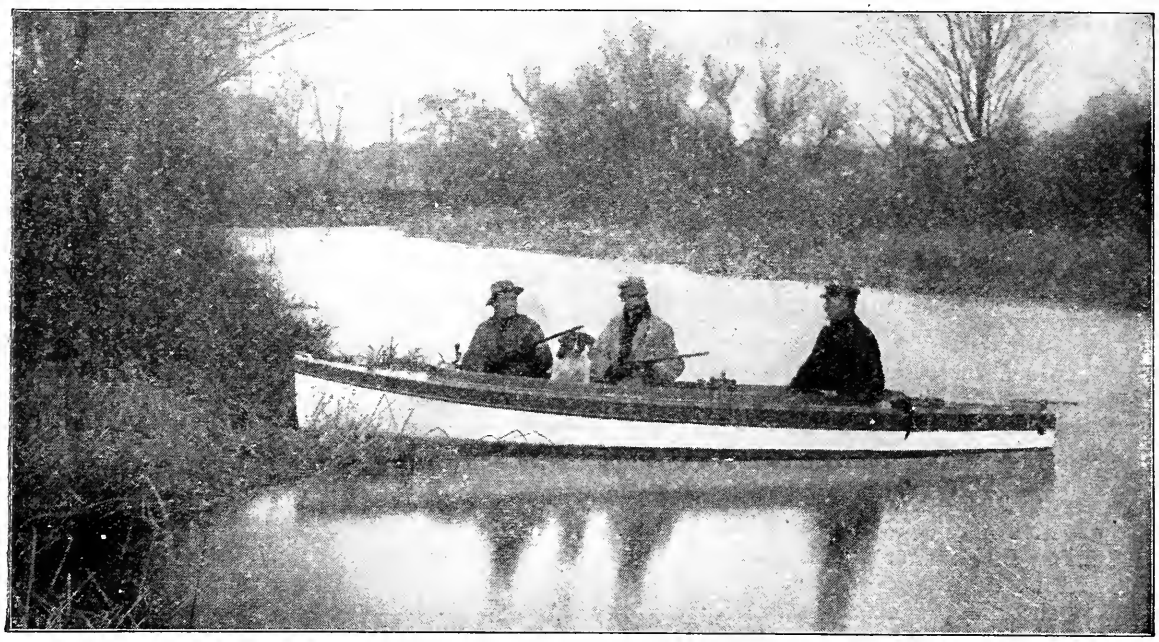

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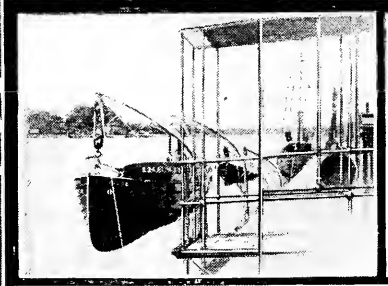

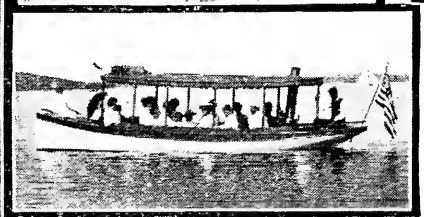

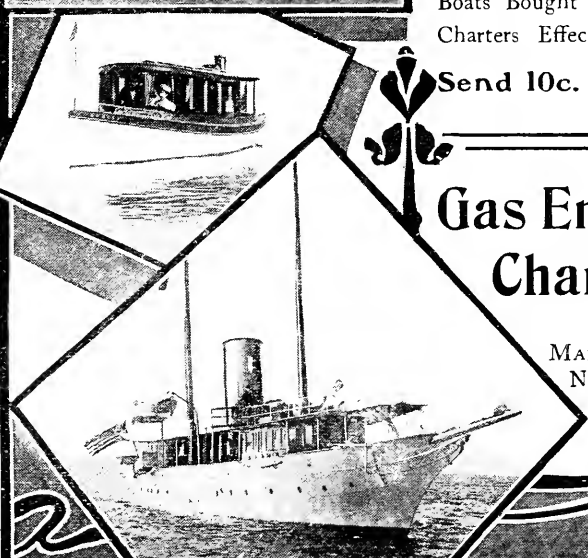

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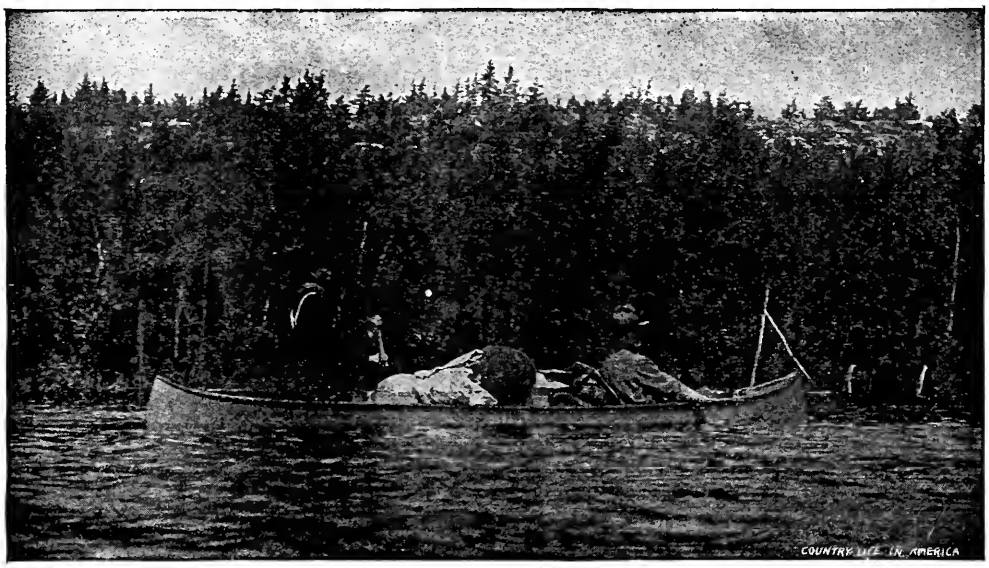

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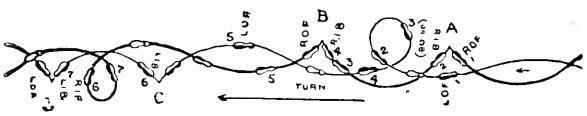

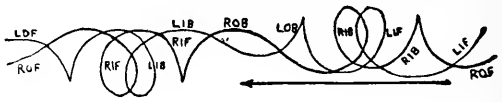

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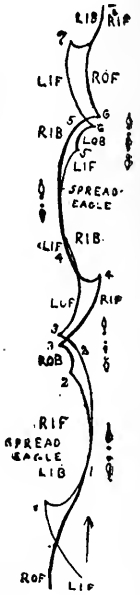

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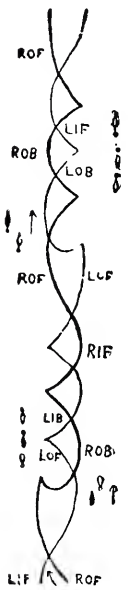

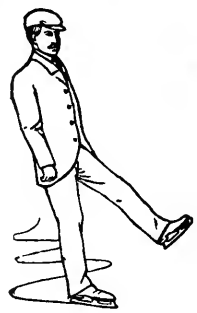

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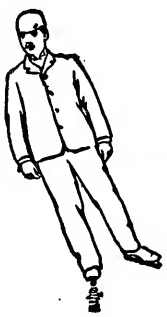

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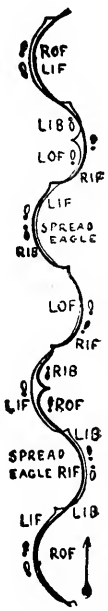

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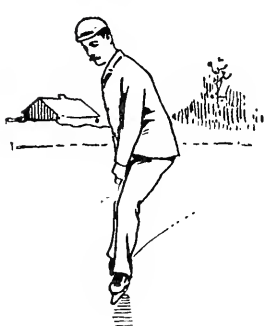

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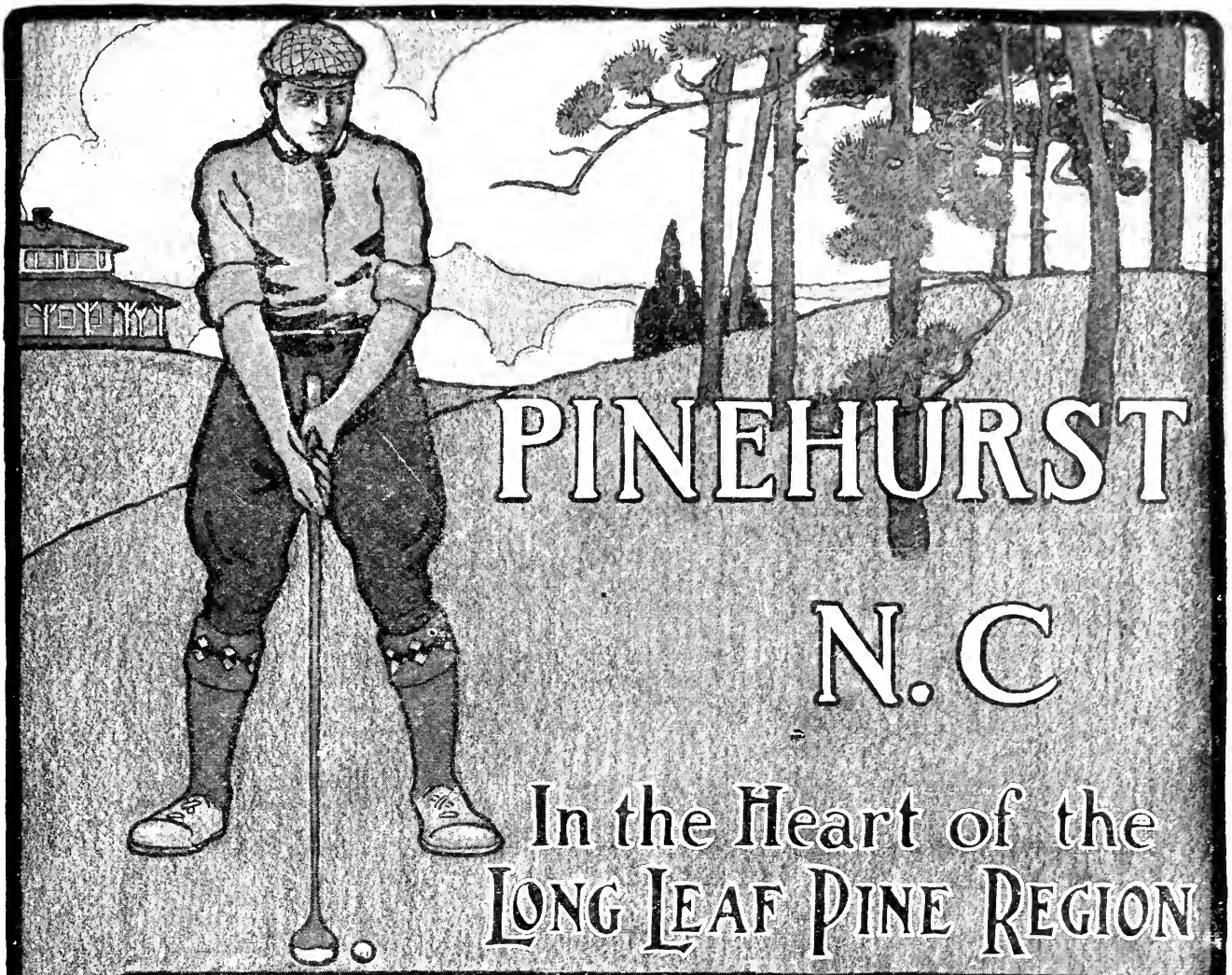

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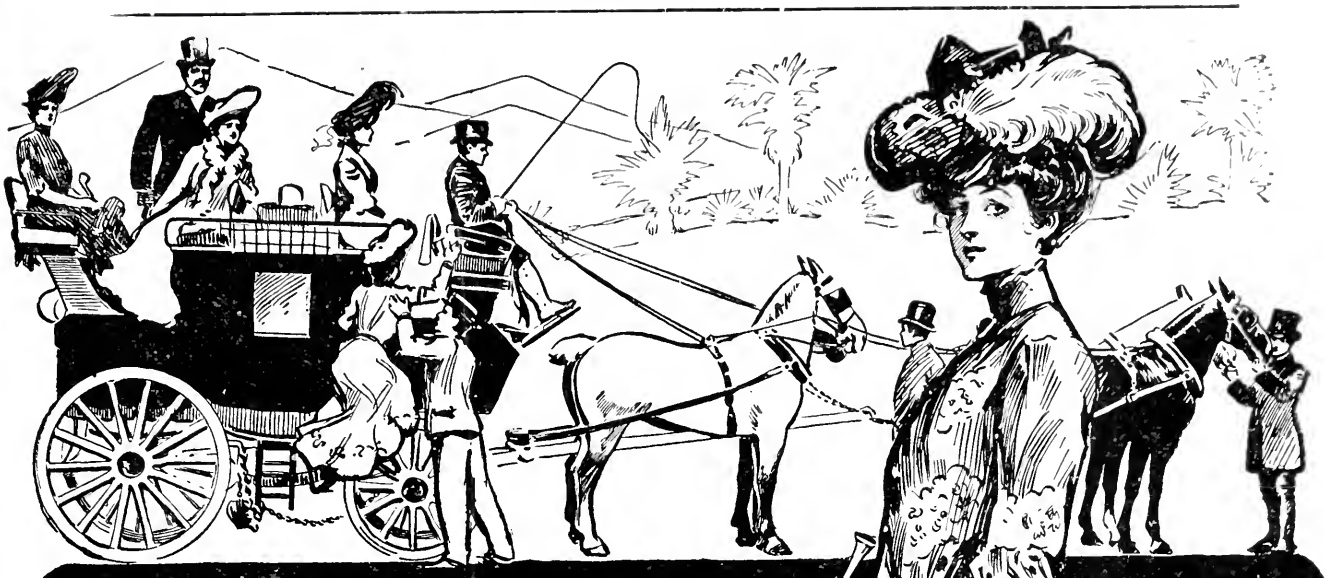

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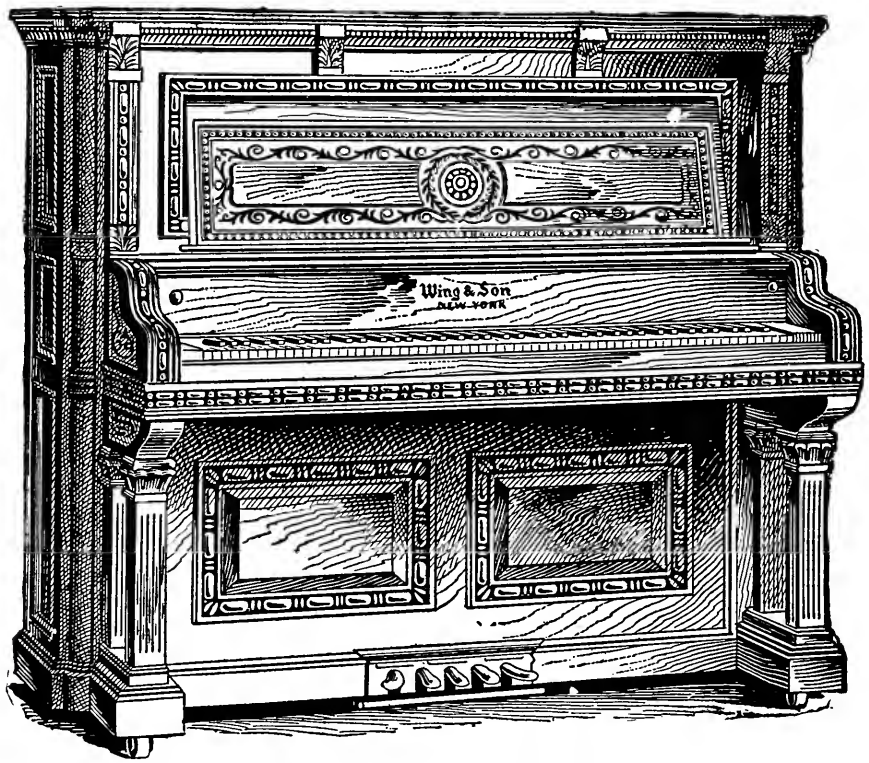

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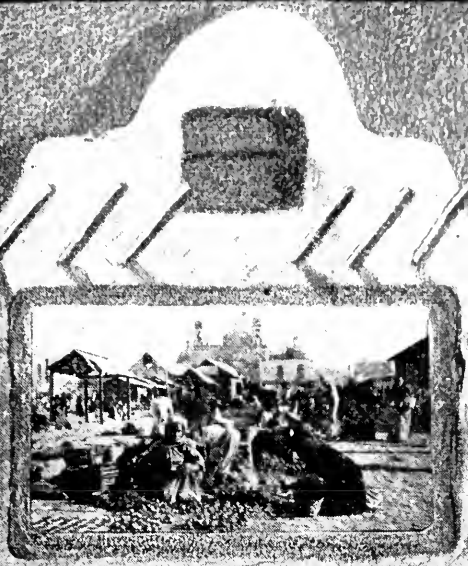

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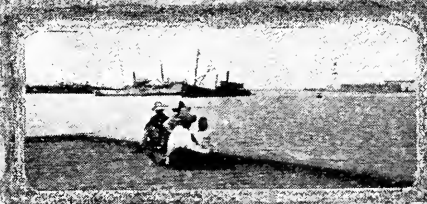

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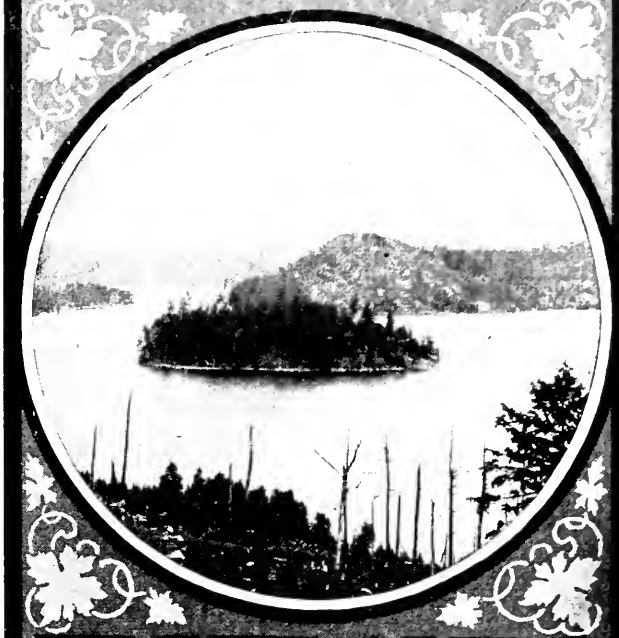

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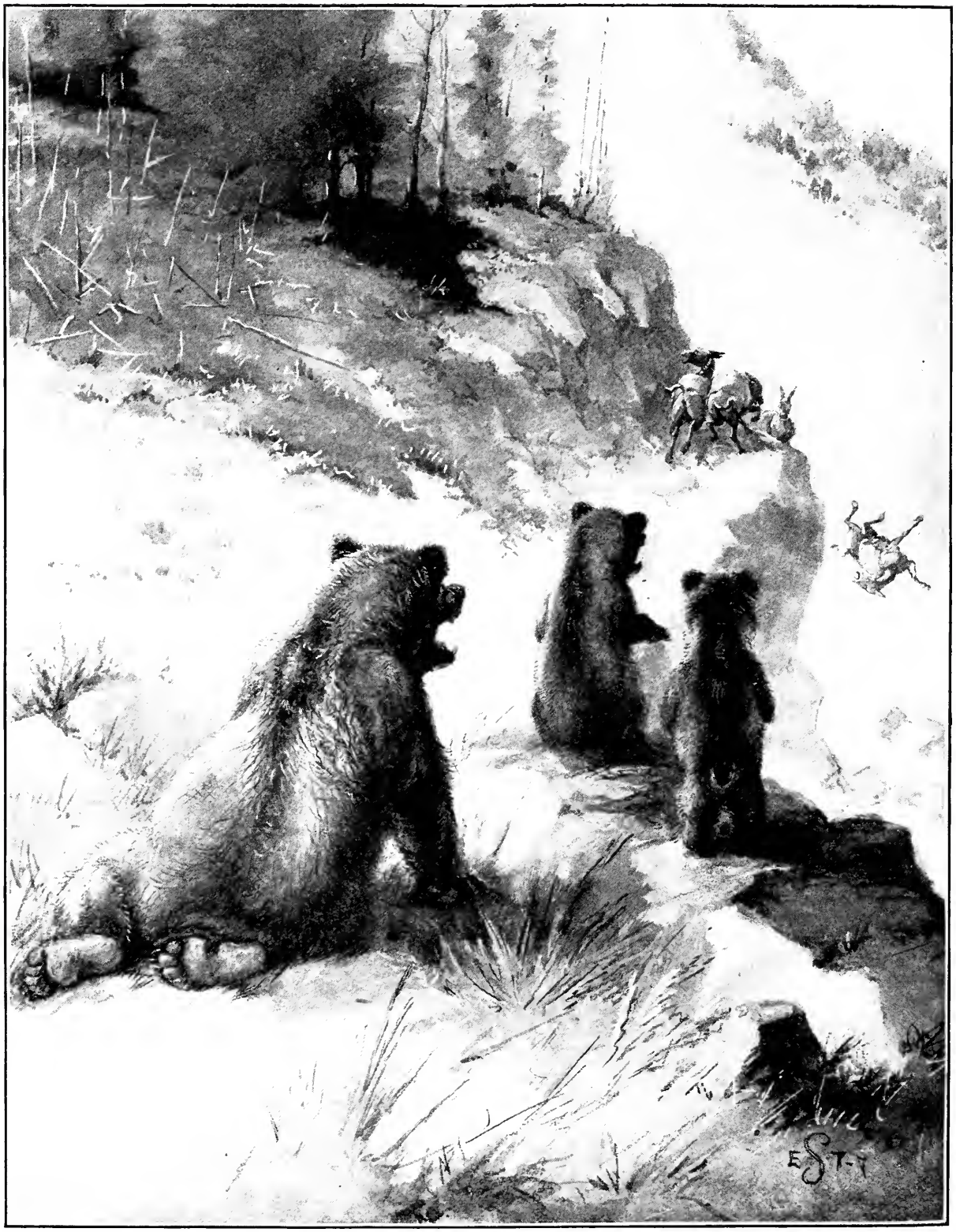


WE STAMPEDED THEIR PACK OUTFITS.

RECREATION

Volume XVII. DECEMBER, 1902. Number 6.

G. O. SHIELDS (COQUINA,) Editor and Manager

THE LIFE STORY OF A GRIZZLY.

H. N. BEECHER.

Many years ago, over near Alma, Colorado, where the wagon road crosses Hoosier pass, we had a lovely home, and our cub life was a happy one. In those days there was no Alma nor other mining camp, and Hoosier pass had not yet come to pass. We had nothing to do but romp all day in the sunshine, eat berries along the mountain streams, or feast on trout, deer or antelope as we might wish, free from care and fear. Our days chased one another into weeks, the weeks glided into months, and a year came as peacefully as the little stream creeping down the mountain side.

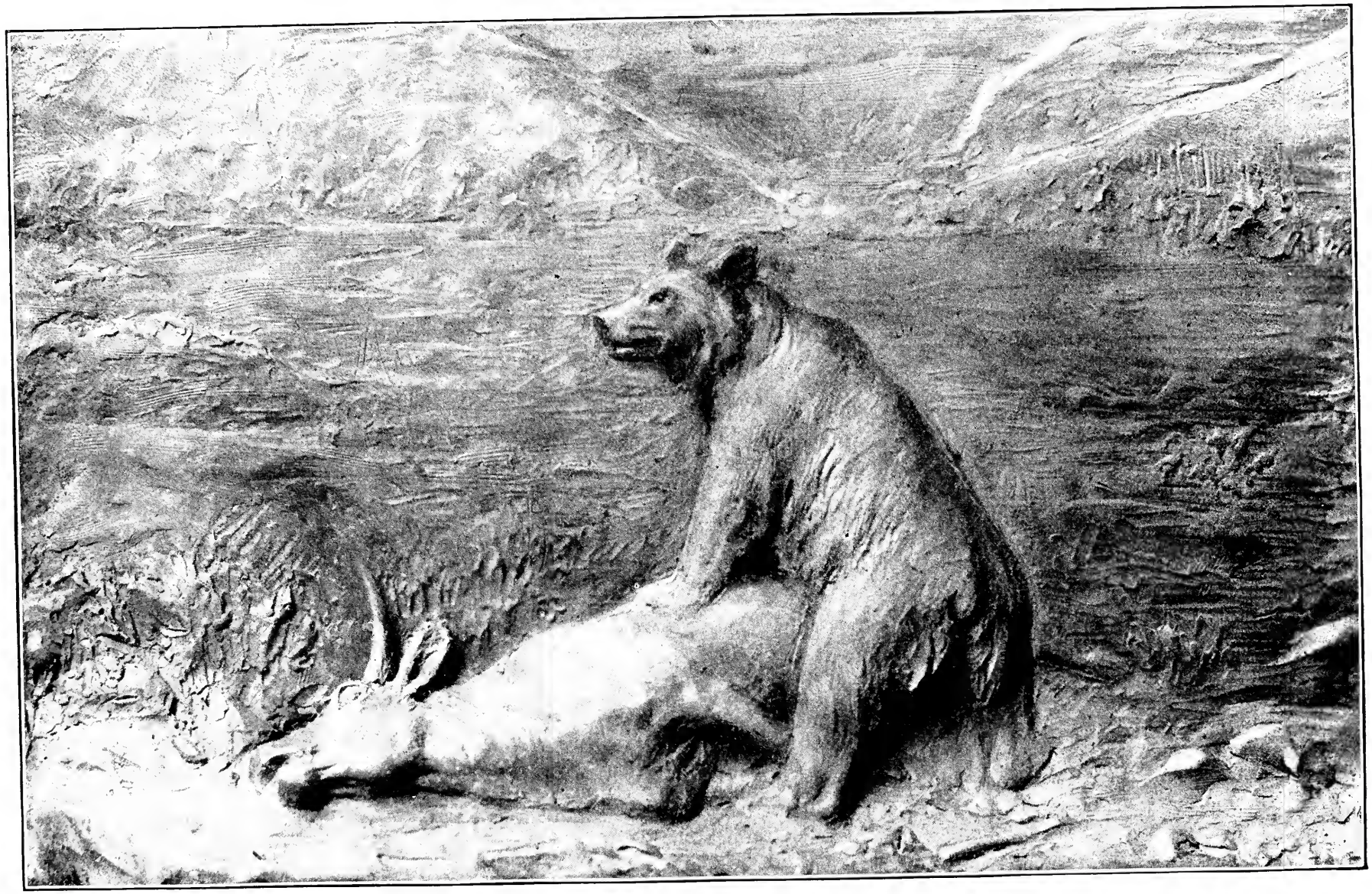
The little mountain stream does not stay little, and it does not always creep, for down at the other end of the trail there is a mighty river. Only a few miners came at first, some in wagons, others on horseback, and a few on foot, leading burros with pack outfits. Then came the big freight teams, 4's, 6's and 8's, with their wagons and trail wagons, big loads of mining machinery and all kinds of merchandise, for they had found gold in our home and we had to move.

Just a little back into the hills we went at first, but still they came. They carried rifles, and some were after bears; for we stampeded the pack outfits, and the stupid burros would not go over our trails. After we had stampeded a few pack trains and dumped a few thousand dollars' worth of truck down the gulches, they got after us so hot we had to move again.

That time father, mother, brothers and sisters, with a lot of uncles, aunts and cousins, said good-bye to the good old times and trailed over on Black mountain. There the ranchmen and cattlemen complained because we killed a steer for breakfast or picked a young colt when berries were scarce. It kept us busy to get a living and save our hides.

When I was not much more than a 2-year-old they caught Mother in a big steel trap. Oh! it was terrible! The impression it made on my mind is there yet, and has saved me from a like fate; for while yet in the awful trap Mother remembered us and warned us about traps, showing us how she had been caught. Then we went to find Father, but before he could get there they had shot Mother and taken her away. Then and there I dropped my little cub heart, and in its place came something I can not describe. The sun did not seem to shine, the ripest berries did not taste good, the water at the best springs seemed muddy.

The days went on into weeks and the weeks into months, but the years did not come peacefully any more, and they came faster. The little mountain stream was becoming a mighty river. All those years I was growing bigger and stronger and uglier, and was hunting for something; I could not have told, myself, what it was, but I knew when it came. One day that Something was out hunting bear! I killed him. Whether it was the one who had trapped Mother I could not tell. It was a



I HAD JUST KILLED A NICE CRITTER FOR ARCH HALL.

From *bas relief* in clay by H. M. Shrady.

man and I was happy; though it was the beginning of more trouble, for after that they hunted us high and low till Pike shot my Father and one brother. He was after me, for I had killed Radcliff. They knew me by my big track, for I was the biggest silvertip on the range; but the trail I climbed was too steep for them. A few years later Whort shot my aunt and a cousin on Cover mountain. Five more of us sprang steel traps at the Stirrup ranch, and they hunted us so hard it kept us trailing back and forth from Black mountain to Poncha. We soon got tired of that and moved again, that time over on Burroughs' mountain. For a while we had an easy time again, for 2-legged critters were scarce in that part of the mountain in those days. Only a man named Burroughs built a cabin on top, where feed was good, and drove in a bunch of cattle. What a picnic for us! He was no hunter. He soon gave it up and drove his cattle down again, leaving us in possession. We missed his cattle at first, but soon made trails down to Arch Hall's ranch, then over to his brother Jim's, and at last down to Dan's. It was a little farther to go for breakfast, but we didn't mind that if we could live in peace on the mountain. It began to look as if we might. The sun began to shine again, the water seemed clearer in the springs, and life was becoming a pleasure once more.

Alas! One day in the fall, as I was going down by the old cabin for water, I heard voices in the timber down the trail we had made to Dan Hall's. I was not long in getting to high ground and out of sight. Soon I saw them, as they came out in the little park just below the cabin. One of Dan's old bronchos was carrying Preacher Harris, and on a spotted Indian pony was Coyote Bill. The preacher was spending his vacation at Dan Hall's ranch, and Bill had taken him for a ride in the hills. Perhaps Bill was telling what he knew about coyotes and did not know about bears, for they would not have known I was in the country if it had not been for that spotted Indian pony! I had been careful not to leave any tracks in the mud by the springs, and I had kept off the regular trail where they usually came, if they came at all to the cabin; but one can never tell which way a preacher is coming from.

They stopped at the first water and got a drink. Brother Harris commented on the fine water and wished he had as good in Canon City. Then Bill took a drink and, looking around the little parks and bunches of quaking asp, he said,

"It looks like a mighty good deer country."

They got on their horses and rode slowly toward the cabin, right across my trail. Then that cussed little spotted Indian pony put her white nose down in the grass and snorted! Bill was out of his saddle in no time, exclaiming,

"When Dell snorts like that it means bear or mountain lion!"

Then he got down on his hands and knees in the grass, looked close and said,

"Bear, by ——"

I guess he was going to say "by thunder," or something of that sort, but he thought of the preacher and quit.

I led them a merry chase all that afternoon, but they were not smart enough for old Mose.

About that time cattle came up in price and the ranchmen complained more than ever. I had just killed a nice critter for Arch Hall, and that set 'em wild. They offered big rewards for bears. Arch set a trap by the carcass I killed, and I went around every night and sprang it for him. I knew how, and I warned the rest of our outfit to let the trap alone, but they only made sport of me. They said Mose was getting old and cranky; so I let 'em alone, and in about a week Arch had a fine young

silvertip in his trap. He took it down to Canon to show Bill and the rest of the boys.

The sight of that fine bear hide set Bill's hunting blood in motion. From that time on, as regularly as fall came, that spotted Indian pony and the brindle bulldog with a spike collar would be seen at some of the ranches around Burroughs' or Poncha mountains. Every time I saw the dog it made me ache to show him a thing or 2. I wanted a chance to prove that old Mose was not made of the same stuff they build coyotes of; and that if he ever braced up to me as he did around wolves and coyotes in a steel trap, I would teach an old dog new tricks and send him to the canine paradise over the bear-paw trail.

I had to calm myself, however, for Tiger always kept close to his master's heels; and I noticed, too, that the boys did not hunt alone, any more. They said they did not mind common black bears, but that when it came to old Mose and his country, company was not a bad thing to have along.

Troubles do not come singly in bear life any more than they do in human life. We faced a new danger; the new smokeless rifle! The old black powder guns were not so bad. Every time one of them went off it made a noise equal to a clap of thunder, and smoke enough for an ordinary storm cloud. We knew for miles around just where the shot came from and what to do; but when the Savage and the 30-30 started to do business it was "a wildcat with a different kind of tail." Just a little pop, like that of a tenderfoot's 22, and a little puff of smoke we could not tell from that of a cowboy's cigarette; but the work it did was a fright! I found a deer that had been shot with a Savage, and it was terrible. It has made me feel uneasy ever since.

The first time I ever heard of smokeless rifles was the year I had my closest call. We had been staying a few days at the head of Joe Hall's gulch, holding a kind of camp meeting in the rose-bulb patch on this side of Poncha. Our feed was good there, so we had given the cattle a rest and thought the men had given up hunting us; but no! One evening, late in the fall, along came that dodgasted little spotted Indian pony and another bronk, with the open box brand, from over on Wilson creek. That meant Whort. They asked Sid if there were any bears up the gulch. Sid said,

"Yes, you bet there are. Old Mose ran me out of there last spring, and I haven't been back since. Didn't have anything but my old '76 Winchester, and concluded I hadn't lost any b'ar. You can have 'em if you want 'em."

The next evening Whort, with his 30-30, and Bill, with the new Savage, struck out for Burroughs' mountain, expecting to find me at my old stamping ground. Not finding any signs of us there, they trailed along the side of the mountain nearly to the head of Joe's gulch and struck down the steep mountain side, right where we were holding services. I had barely time to get the sisters and children started up the other side and take the main trail myself to lead the hunters off. I knew they wouldn't bother the other tracks when once they had sight of mine; and so it was. They got so close to me once it made my old hair go straight up. I couldn't leave the trail, for the mountain was covered with fallen timber, and I wouldn't have stood any show at all in that. All I could do was to keep on down the trail till I reached the short grass, where they could not track me. I knew they expected me to keep on down the creek, but I didn't. I turned off to the left, and that night I killed a steer for Mrs. Hodges over on Cottonwood. Whort and Bill went back the next day and set their traps, but I did not return that fall.

The next year the little spotted Indian pony was corralled at Arch Hall's ranch, and Brown and old "Kodunk" took a hand in the game. They stopped at Gardner's, and Len gave them a big jaw steer for bait. They started out loaded with bait and bear traps till you would have thought there would not be a live bear within 100 miles of the layout; but they didn't cut much hay that trip! Old Kodunk drank all the whisky and then got lost on the range. They caught 2 eagles in their bear traps, and Brown and Bill carried a deer down to camp that had happened along the trail and met one of those new Savage bullets. I wasn't stopping bullets that fall, and had struck out for Black mountain again as soon as I saw the spotted pony.

The next year Whort bought the Stirrup ranch and moved all his traps on to Poncha. I took 3 rounds of his bait without springing a trap. Then I warned the few of our outfit that were left and we moved to the head of Long gulch, above Summerville's; all but one fool of a cub, who stayed behind to see if I was right about the traps. He found out, and Whort scored bear No. 4.

Dan Hall and Bob Foster opened target practice on one of us after we went to Long gulch. Dan wanted a rug, but he did not get it, for after they took the hide off it was so full of holes his wife nailed it up to the kitchen window for a fly screen.

The affair startled me a little, and I, then alone, trailed my weary old bones back over on the far side of Poncha, just above the Stirrup ranch, to my old den, near where I had killed Radcliff. It was an open winter, and I didn't hole up for good till after Christmas. Then I slept the sleep of the old and weary for 2 solid months.

In the spring the spotted pony
Rests within the old corrall.
In the spring old Mose still wishes
That same broncho was in ——

I am not much on poetry, and you wouldn't expect it from a bear; but these lines of Tennyson came to me early in March. It was the first day I had come out after my long nap, and I thought I would take a peep down at the Stirrup ranch, to see what was going on. There in the corrall, feeding at the big hay rick, was that same little spotted Indian pony! The next day they rode up the side of Poncha, toward my den, but the snow was so deep in places I knew they could not reach me that trip. Besides, they carried kodaks and were taking pictures. Whort pointed out the place where he was going to set his new bear traps and showed Bill where he caught the cub last fall. Then they went back to the ranch and took pictures of the cattle. The next day they drove back to Canon City; but they left the little spotted Indian pony!

I crawled wearily back into my den, but I did not stay long, for each day it got warmer, the sun shone brighter, little rugged points of rock crept up through the snow on Pike's peak and the Sangre, and down on the South hill side, below in the quaking asp groves, little bunches of dry grass beckoned spring to hurry. Then I lay all day in the sunshine at the door of my den and thought, for animals do think. I wondered how it would be with old Mose when these old bones should lie bleaching in the sun on Poncha mountain and this big, shaggy old coat of mine, all tipped with silver, should adorn Whort's den at the Stirrup ranch.

Is there a Heaven for bears?

I heard Coyote Bill tell the boys around the camp fire, one night, that dogs went to Heaven, and that old Tiger was going there. He said they had a little corner off by themselves, away from the main push, where they chased jack rabbits and coyotes over the green hill side and didn't get cactus in their paws.

If dogs, why not bears?

I wonder what it will be like? Will Mother be there? Will the sun shine as bright and the streams be as clear and the berries be as thick and the deer and antelope as plentiful as they were in my cub days back at the foot of Hoosier pass, before the hand of man turned our earthly heaven into hell? Who knows?

Then I look down over the big snow bank below my den, across the big timber and the wonderful pile of rocks where Nature once built a big temple and tipped it over just to see it fall; farther down on the little flat, where the cedars and soap weed grow; down over the calf pasture and past the big feeding corralls; still farther down to the beautiful meadow in the valley below, and what do I see? Just a little spotted Indian pony running with the bunch of Stirrup cow ponies; and I know they are coming back!

It may be in a few days or it may be weeks, but they are coming. They will bring the Savage and the 30-30, and life will again be a burden to poor old Mose.

Well, it doesn't matter much. I have lived about long enough. Every bone in my body aches, day and night. I have been driven from hill to hill and from cave to cave for many years. My parents, my brothers and my sisters have been killed, and I am left alone in my old age.

I am no longer active and powerful as I once was. I can not make the great leaps, nor strike the terrific blows necessary to kill a big steer. My teeth are broken so it is difficult for me to eat a steer, even if I could kill it. I am therefore reduced to a diet of roots, grubs or carrion. I have outlived the days of my strength, my prowess and my cunning; so, come to think it all over, I don't care how soon some fellow puts one of those Savage bullets into me.

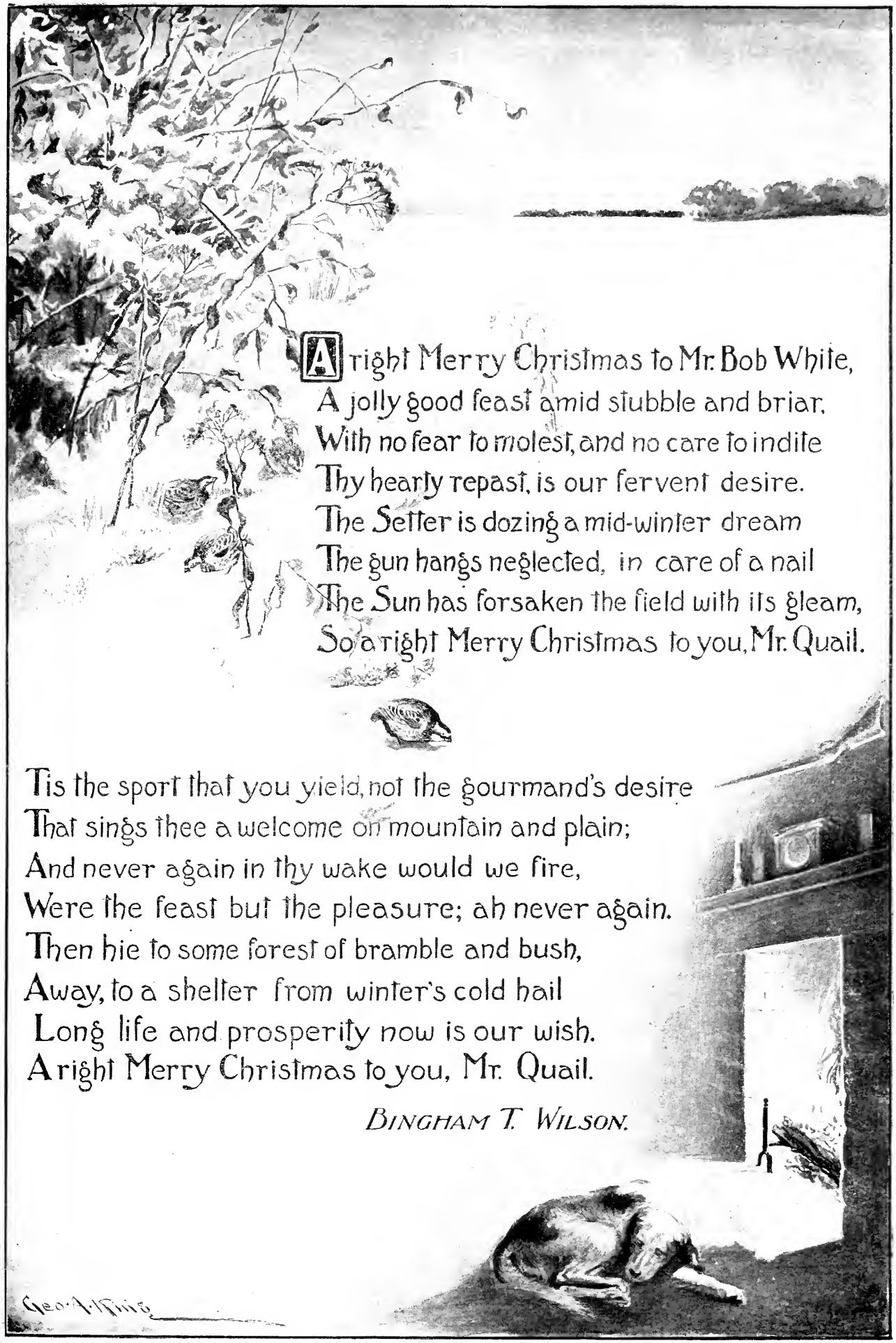
* * * * * * *

A prospector who was working on the mountain, a year later, found a skull and a few of the other large bones of a big silvertip, evidently a very old bear, just in front of the cave where old Mose hung out. The teeth were worn away and there were several enlargements about the joints, such as result from rheumatism. No doubt those were the bones of old Mose.

Thus the king of Battle mountain had at last passed in his checks, and none of his kind is left to mourn his departure.

"We had a delightful time last week," said the city cousin, who was describing the joys of metropolitan life. "One evening we trolleyed out to a suburban home and ping-ponged until nearly midnight, and next day we automobiled to the country and golfed until dark."

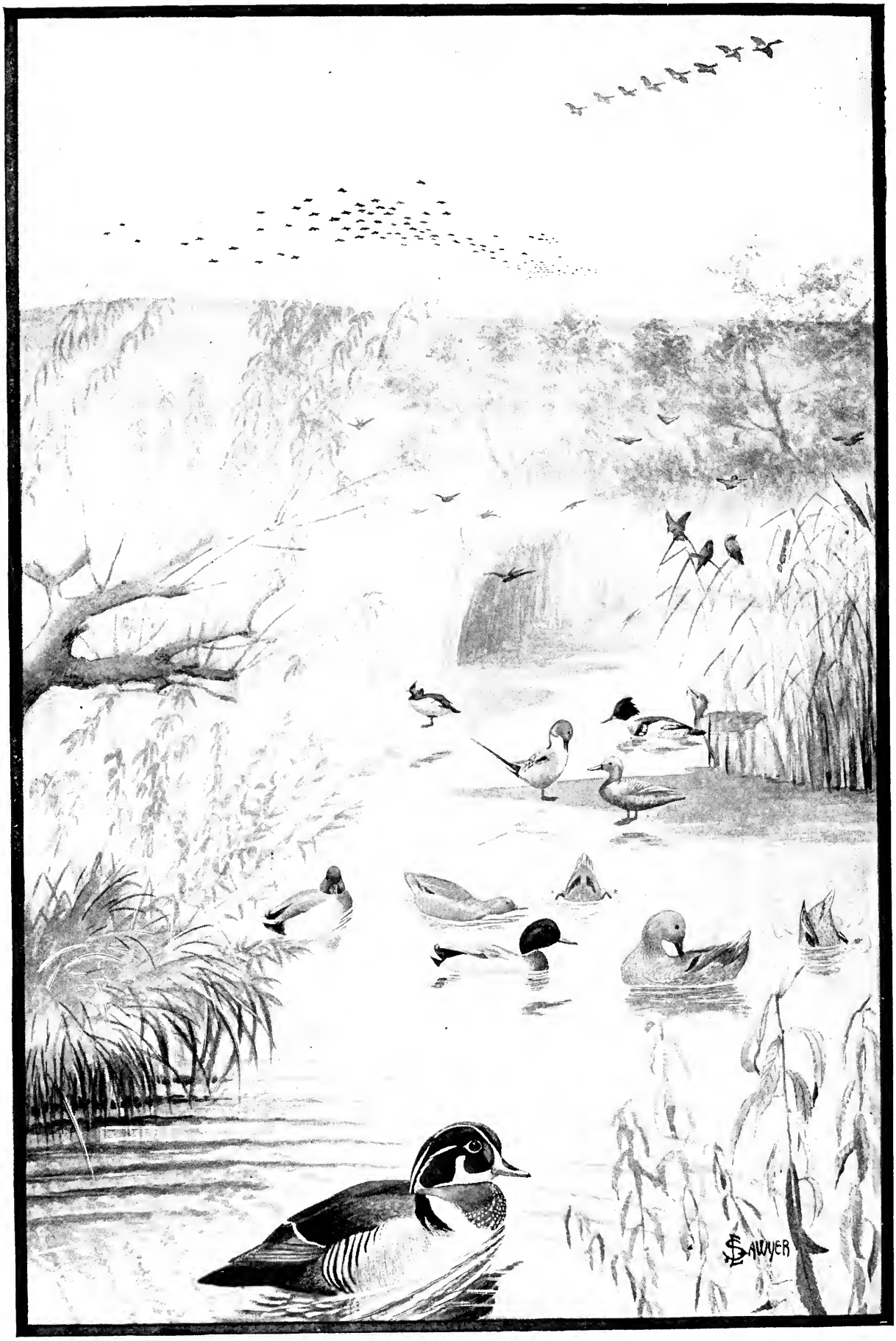
"Well, we had a pretty good time last week, too," ventured the country cousin, with a sarcastic smile. "One day we buggied over to Uncle Josiah's, and we boys got out in the back lot and baseballed all the afternoon, and after we had dinnered, some of the men cidered and tobaccoed a while."—Baltimore American.



A right Merry Christmas to Mr. Bob White,
A jolly good feast amid stubble and briar.
With no fear to molest, and no care to indite
Thy hearty repast, is our fervent desire.
The Setter is dozing a mid-winter dream
The gun hangs neglected, in care of a nail
The Sun has forsaken the field with its gleam,
So a right Merry Christmas to you, Mr. Quail.

'Tis the sport that you yield, not the gourmand's desire
That sings thee a welcome on mountain and plain;
And never again in thy wake would we fire,
Were the feast but the pleasure; ah never again.
Then hie to some forest of bramble and bush,
Away, to a shelter from winter's cold hail
Long life and prosperity now is our wish.
A right Merry Christmas to you, Mr. Quail.

Bingham T. Wilson.



THE BIRDS SEEM TO CENTER HERE FROM ALL OVER THE CONTINENT.

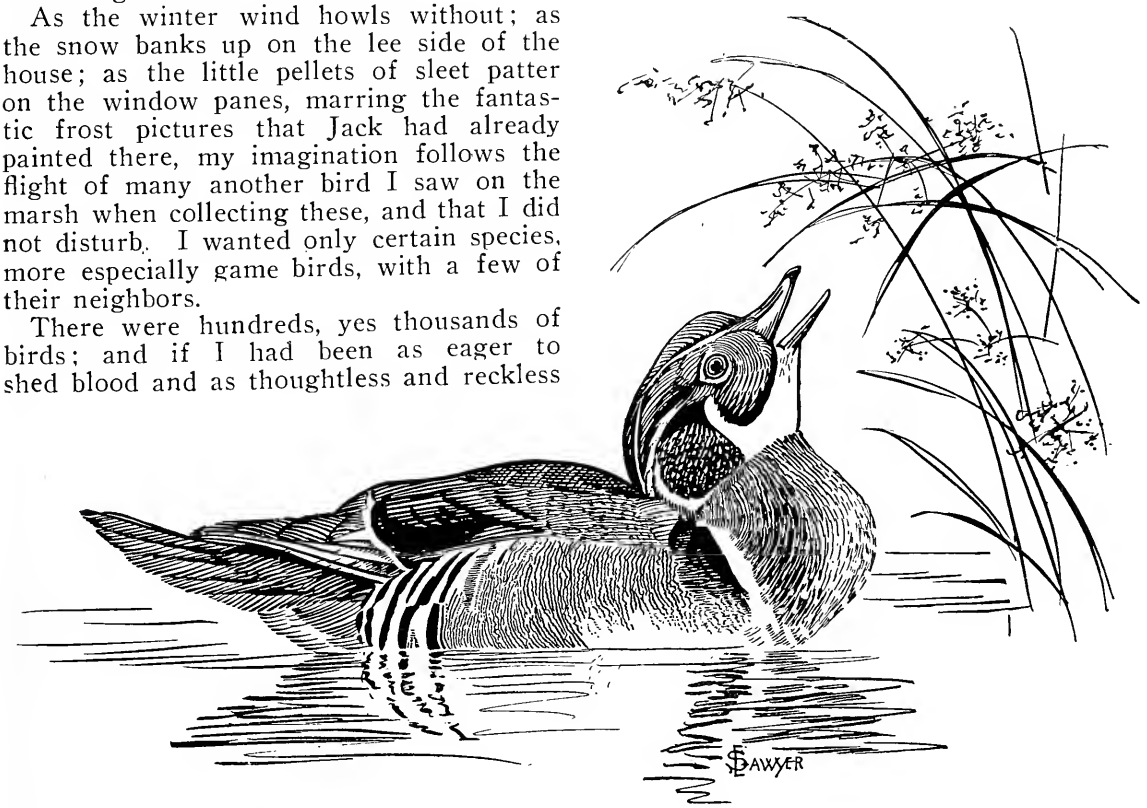
FIRESIDE MEMORIES.

J. H. MACKAY, M. D.

I have just laid away the latest copy of RECREATION, and the stories I have been reading in it have set my mind wandering backward. As I sit here by my winter fireside, puffing my cigar and looking about the room, my eyes light on a case of mounted birds that I have collected in the marshes and along the rivers hereabout.

As the winter wind howls without; as the snow banks up on the lee side of the house; as the little pellets of sleet patter on the window panes, marring the fantastic frost pictures that Jack had already painted there, my imagination follows the flight of many another bird I saw on the marsh when collecting these, and that I did not disturb. I wanted only certain species, more especially game birds, with a few of their neighbors.

There were hundreds, yes thousands of birds; and if I had been as eager to shed blood and as thoughtless and reckless in my love of slaughter as many men are, I could have killed hundreds of them during the hours I sat within my blind, or tramped about the sloughs and along the river.



THE BEAUTIFUL WOOD DUCK WITH PLUMAGE RIVALING THAT OF THE PEACOCK.

It is a strange quality of mind which so many men and boys possess, inherited perhaps, from our savage ancestors, and which so many of us have not attempted to curb or refine in any way. I might almost say that the average man or the average boy values a bird only when it is dead; that he considers it a misfortune that so many birds or animals should escape the hails of lead sent after them. Not that these men or boys need these wild creatures. That is a small part of the impulse to kill; but these thoughtless, reckless men think it great fun to see the feathers fly from a bird when the gun cracks; to see the limp and mangled body fall to the ground; to rush out, gather in the bird and chuckle over its untimely taking off.

Why can not all men and all boys realize that a bird is only valuable while it lives; that when dead its beauty fades and its interest to the world at large ceases? Why do we not all learn to hunt with a camera instead of a gun? Why do we not learn to find satisfaction in the study of the habits of the birds? To admire the grace, the beauty, the swiftness of the bird in flight?

Birds rarely fly far at any one time if let alone. If you flush one, or a dozen, or a hundred of them, they are likely to circle about you, perhaps to move away 100, 200, or 500 yards, and settle down again within sight and within easy walking distance. Why not observe their movements as they go? Why not follow them, crawl in behind a clump of willows or a sand hill, a tree or a rock, and see what they do in their new quarters?

If you will try a day of this kind

of hunting you will enjoy it 10 times as much as you ever enjoyed a day's shooting in your life, and you will go home at night with the delightful consciousness that you have left the birds for other people to

AND SETTLE DOWN AGAIN WITHIN EASY WALKING DISTANCE.

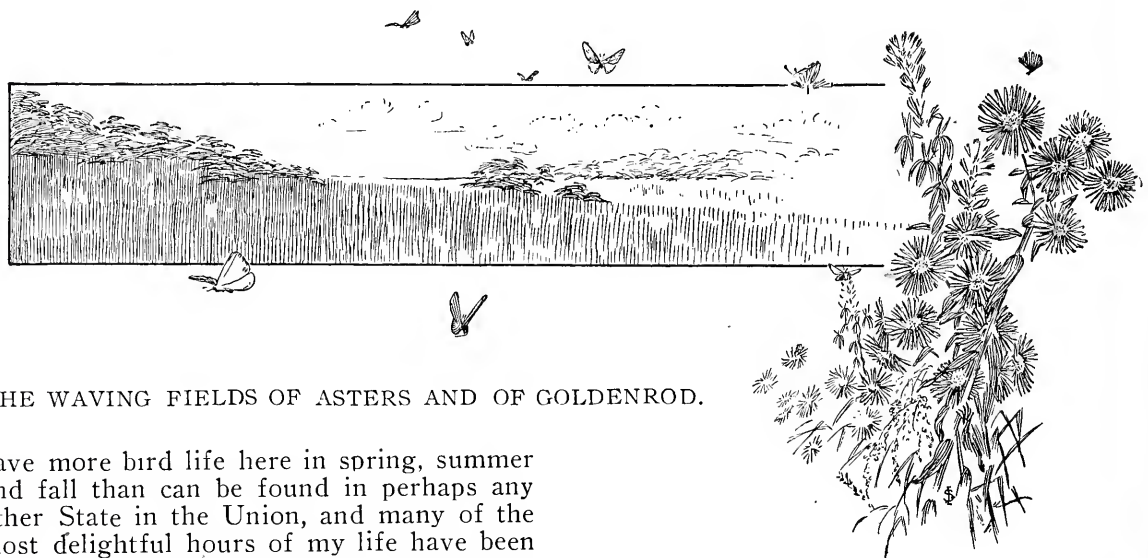
study and to enjoy. Remember, there are thousands of men, women and boys in the United States who never fire a gun, and who never care to do so; yet there is scarcely one of them who does not love and admire birds, to a greater or less extent. Why not consider the interests and the desires of these hosts of people?

The birds seem to center here in Nebraska, from all over the continent. We have more bird life here in spring, summer and fall than can be found in perhaps any other State in the Union, and many of the most delightful hours of my life have been spent in watching these birds. Of course I have killed some of them, but have never wasted any.

I have found great delight in mounting some of the best specimens I have killed, and afterward in looking over these birds and in recalling the scenes amid which I found them. If I had not saved some of these specimens, I should not have enjoyed the delightful recollections that now come to me, of the hazy, shimmering autumn days; of the hush and repose of the waters; of the gorgeous colors of plant and shrub; of the reddened sky at sunset, and the afterglow which painted the heaven far into the gathering twilight.

Without these mute reminders I could scarcely have recalled to-night the magnificent plumage of the cardinal, the oriole, the robin, the meadow lark or the wood duck.

I could scarcely have recalled the waving fields of asters, and of goldenrod. I could scarcely have heard, as I now seem to hear, the rustle of the dying flags and rushes that bordered the sloughs and lakes.



THE WAVING FIELDS OF ASTERS AND OF GOLDENROD.

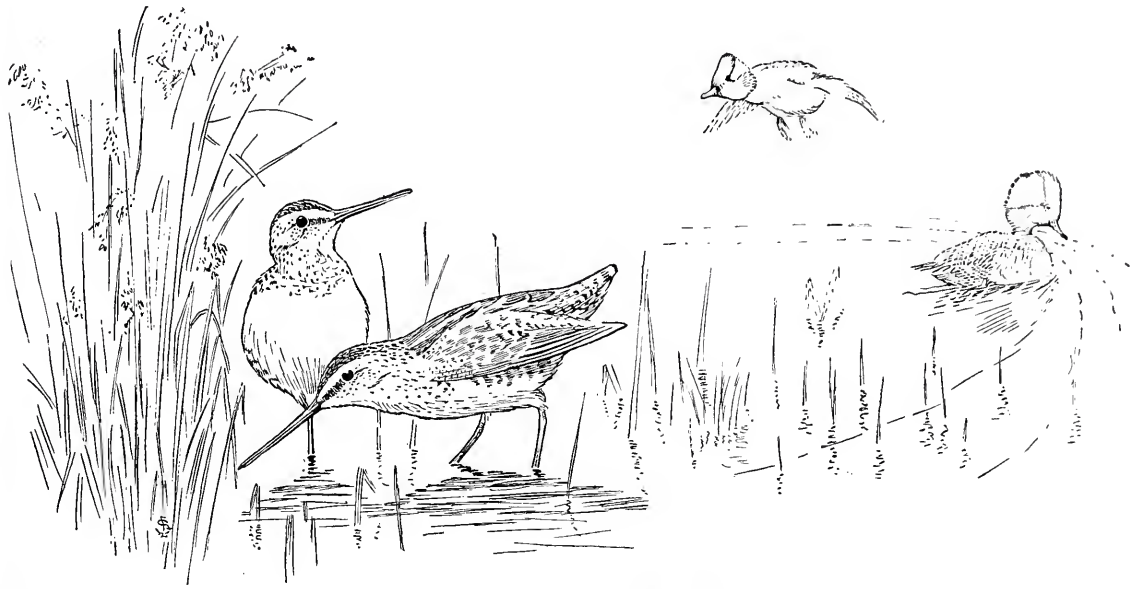
I might have forgotten the gorgeous and erratic butterflies that lingered into the autumn when I was collecting these birds.

I might have forgotten the cohorts of ducks and geese and gulls that circled and doubled over my head repeatedly, before settling into the water.

I might have forgotten the grateful and exhilarating chatter of these birds after

finding a refuge where they could camp for the night, without being bombarded by shot guns from every clump of brush.

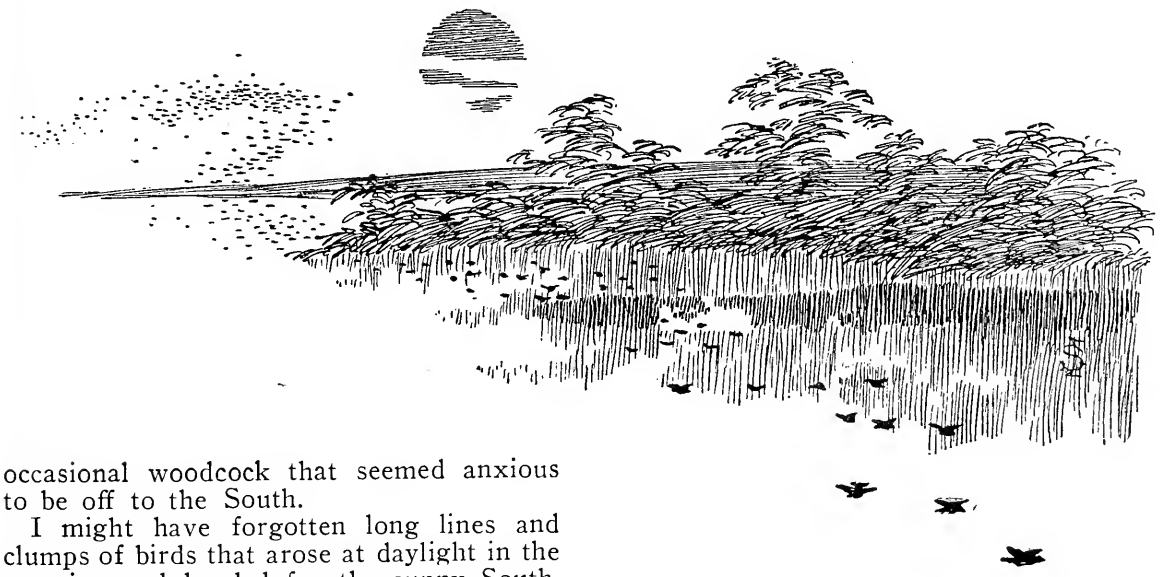
I might have forgotten the frequent



IN SEARCH OF A PLACE TO SPEND THE NIGHT.

"scaip" of the jacksnipe, as he changed from one part of the marsh to another in search of a suitable place to spend the night.

I might have forgotten the whistle of an



HEADED FOR THE SUNNY SOUTH.

occasional woodcock that seemed anxious to be off to the South.

I might have forgotten long lines and clumps of birds that arose at daylight in the morning and headed for the sunny South, realizing that the winds had grown too chill for them in this Northern region.

But the silent watchers on the mantel and on various brackets about the room, recall all these things as the winds howl over the prairie to-night.

Especially vivid are the recollections of one October afternoon beside the Platte. Before my eyes there arises a moving picture of filtering morass, of gurgling water, of green hillocks, of tiny ponds, reflecting the warm sunbeams; of watercress swaying in the current of a tributary brook; of rushes sheltered and banked with thickets of willows, sumac and wild plum bushes; of the bright plumage of moving birds mingled with the many hues of the foliage, the brown, waving prairie grass and of late blooming flowers.

The notes of the purple grackle, the bobolink and the meadow lark, the clatter of

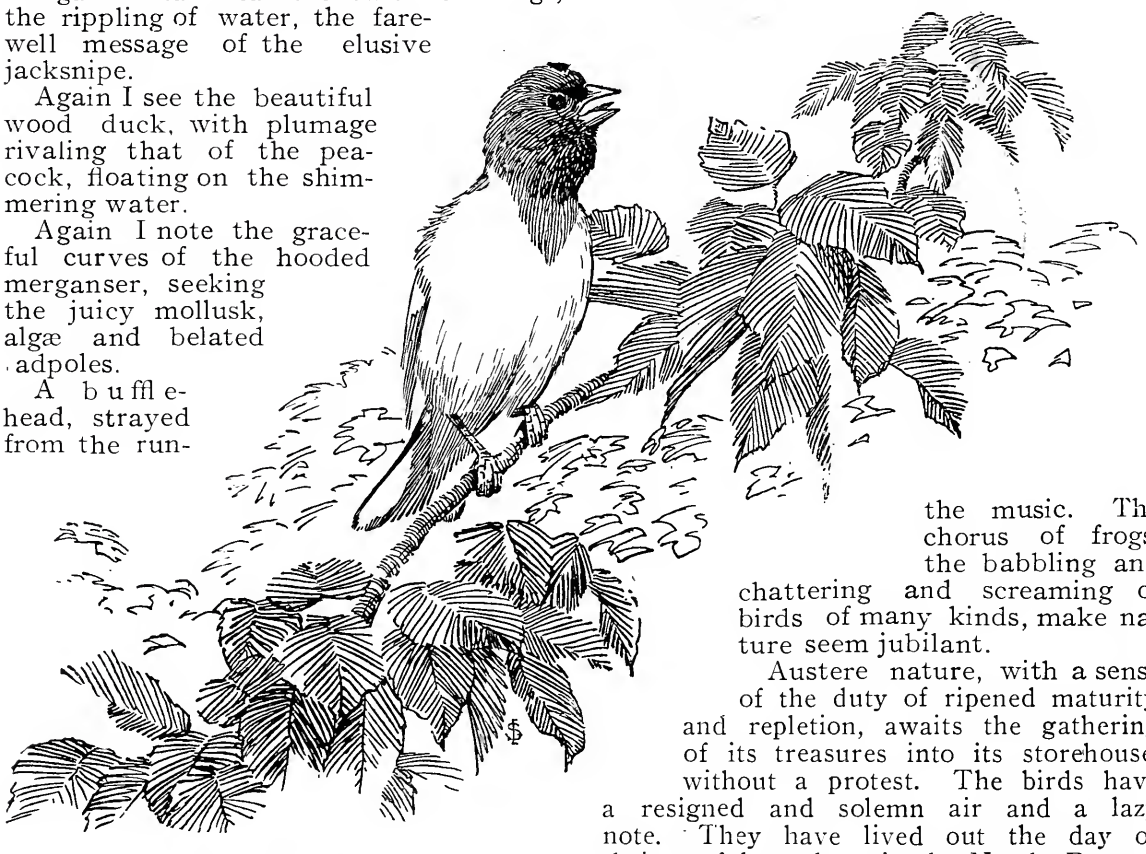
ducks, all come to me as clearly as they did on that balmy autumn day, and they help to soften the austerity of these winter nights.

Again I can hear the swish of wings, the rippling of water, the farewell message of the elusive jacksnipe.

Again I see the beautiful wood duck, with plumage rivaling that of the peacock, floating on the shimmering water.

Again I note the graceful curves of the hooded merganser, seeking the juicy mollusk, algæ and belated adpoles.

A buffle-head, strayed from the running water of the river, takes a peep at his congeners of the marsh, paddles in among them a few minutes; then rises and returns to the big river where he evidently feels more at home.

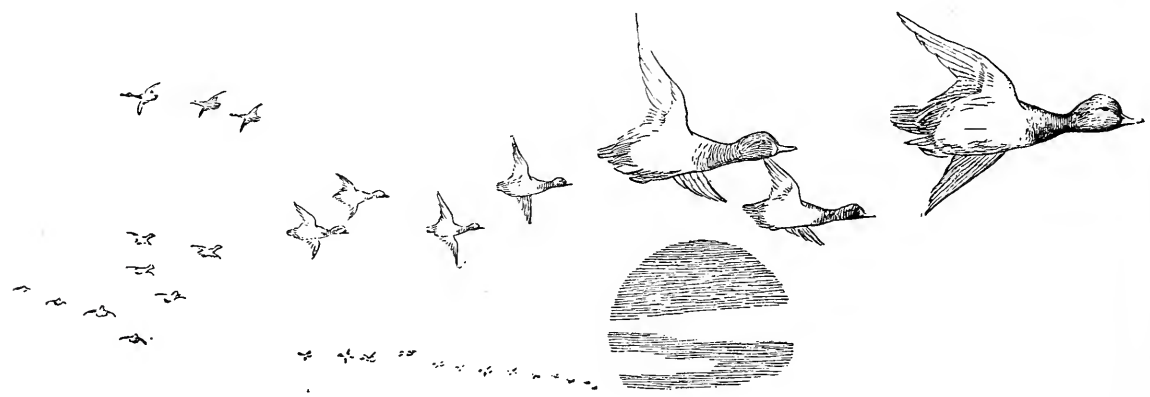


BACK IN THE THICKET THE GROSBEAK WHISTLES ITS WEIRD NOTES.

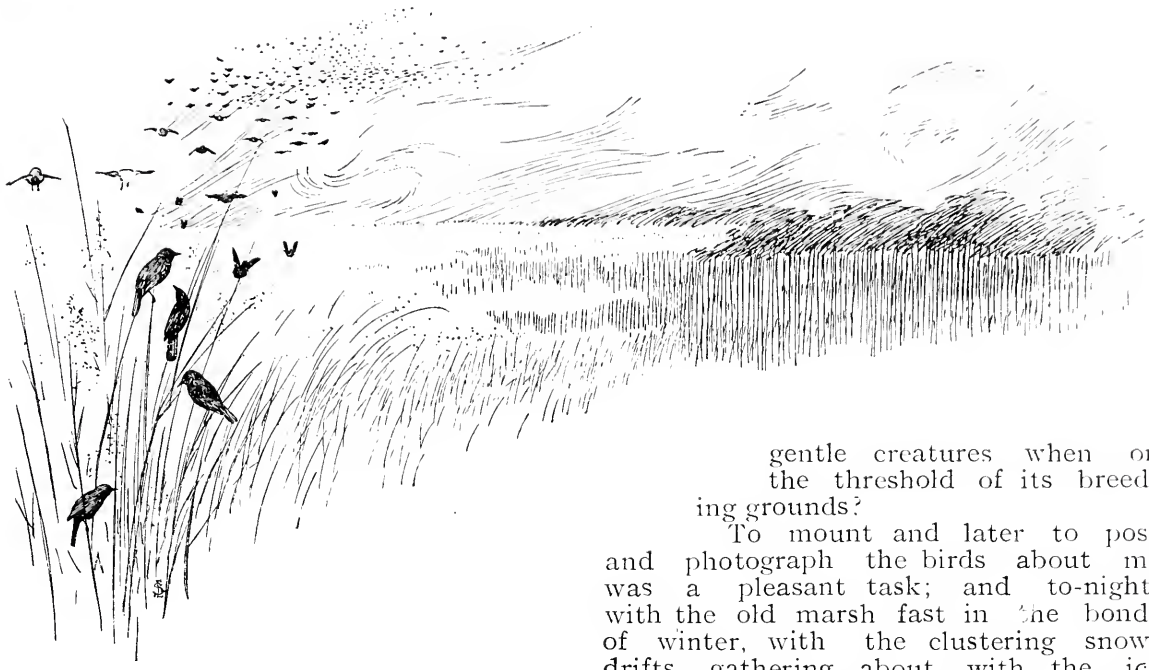
Back in the thicket the grosbeak whistles its weird notes. The thirsty quail seeks the water and drinks daintily. A flock of crow blackbirds and a few purple grackles pipe their distorted and discordant notes from among the rushes. The ripeness and satiety of nature cast a spell on all its creatures and they revel in the sun and in the music. The chorus of frogs, the babbling and chattering and screaming of birds of many kinds, make nature seem jubilant.

Austere nature, with a sense of the duty of ripened maturity and repletion, awaits the gathering of its treasures into its storehouse, without a protest. The birds have a resigned and solemn air and a lazy note. They have lived out the day of their usefulness here in the North. Parents have reared their young to maturity and strength, and all are, so to speak, folding their tents for their Southern journey.

Those of this mighty throng which escaped the fusillade of firearms *en route* South are again in their winter quarters and will return to us next spring, cooing and mating, seeking suitable places for the building of their tiny houses and for the rearing of other broods of young. Their songs will be far more vigorous and cheer-



THE SWISH OF WINGS.



THE FILTERING MORASS OF GURGLING WATER.

ful then than now, for they will be tempered with love and with paternal sentiment. The singers will be intent on working again the miracle of nature. Who could be so base as to outrage the plan of the Creator by destroying one of these gentle creatures when on the threshold of its breeding grounds?

To mount and later to pose and photograph the birds about me was a pleasant task; and to-night, with the old marsh fast in the bonds of winter, with the clustering snow-drifts gathering about, with the ice bridging pond, lake and river for months to come, I sit dozing by the fire, and in fancy live over again the delightful days spent with rod, and gun, and camera. Yonder on the rug sleeps my gentle setter. Perchance he too is dreaming of the joy we had afield in autumn days gone by.

THE THIRSTY QUAIL SEEKS THE WATER.

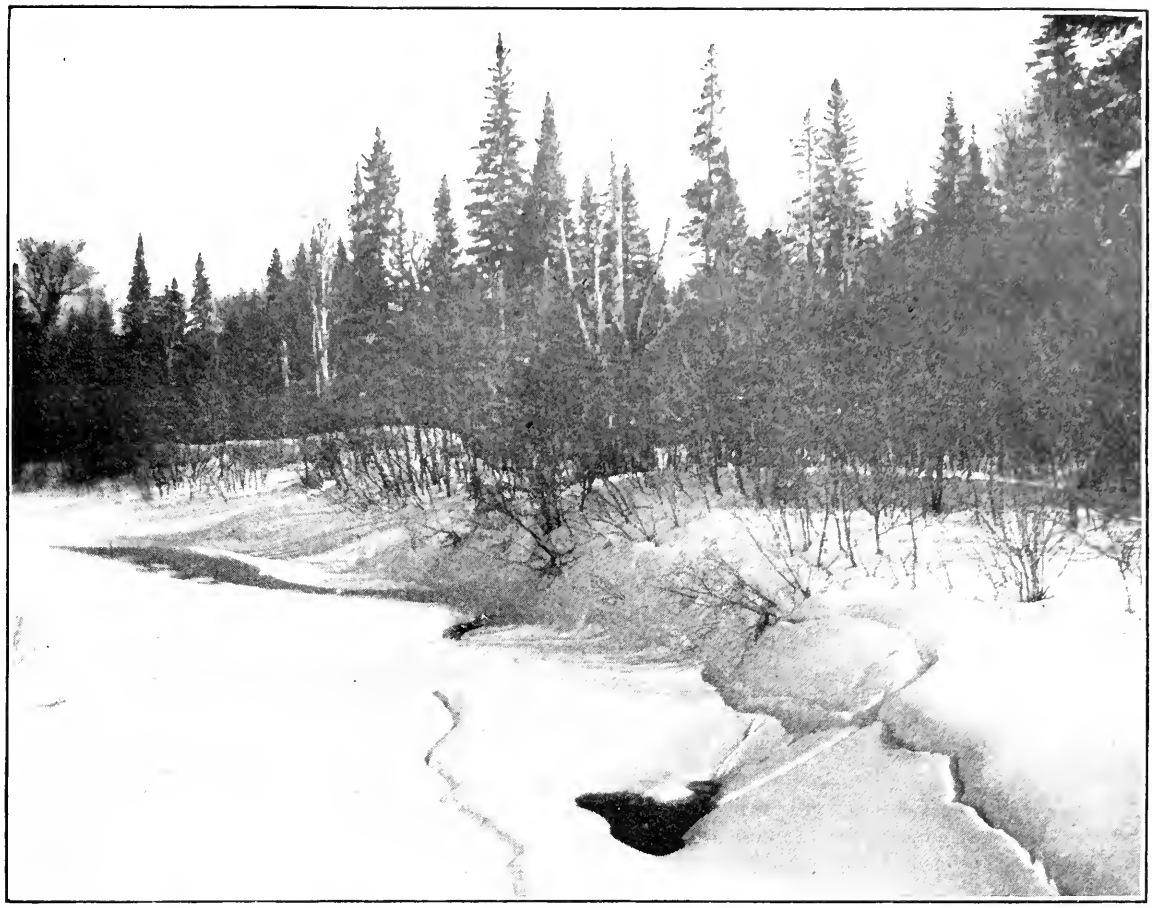
WINTER IN THE MAINE WOODS.

A CAMERA POEM.

Amateur Photos by H. E. Janes.

A TOTE ROAD.

A TROUT BROOK IN CLOSE SEASON.



ON THE TRAIL OF SIR REYNARD.

LOOKING FOR SIGNS.

DEEP IN THE FROZEN FOREST.

TIRED.

POSING AN UNWILLING SUBJECT.

A CAMERA SHOT AT SHORT RANGE.

STUDYING A STRANGE FIND.

DECEMBER IN THE WOODS.

DWIGHT E. SMITH.

Bleak is the forest, still and chill.
Cold, gleaming, desolate lies the snow
Upon the hills. Night now draws near.
Far in the West, below the fleecy clouds,
The burning sun goes down. The Western sky,
A moment flushed with red, grows white as steel,
Cold, bitter cold, and dead, and deathly still.
The forest dark and grim, with towering trees,
Stands out against the moonlit, glittering snow.
The treetops, black and bare and motionless,
Are traced upon the sky like lacework fine.
The trunks below, in vistas long and gray,
Stretch out toward other vistas: all is still.
Stern silence passes through beneath the trees
And leaves no trace behind. All things are dead.
Here nothing lives. The distant, gleaming stars,
So coldly glittering in a sky of steel,
Gaze down upon the forest and the snow.
The moon floats by; her chill and cheerless light,
Vague and uncertain, hovers over all,
And all is dead and desolate and drear,
And desolate and dead and drear—and drear!

"They caught a man robbing the public library till in a New England town."

"How did they punish him?"

"Made him read all the historical novels."—Cleveland Plain Dealer.

A DAY WITH MUSKALONGE IN CANADA.

DR. GEO. M'ALEER.

Morning came. Dog days had not run their course. The sun cast up red like a ball of fire. Not a breath of air stirred to temper the torrid heat. Swallows flitted lazily about, and the sibilant song of locusts fell drowsily on the ear. Tiny, fleecy clouds on the horizon gave promise of showers during the day.

During the early hours of the forenoon I repaired to the home of old Brissette, on the bank of Pike river, which flows into that portion of Lake Champlain known as Missisquoi bay, near the village of Bedford, Quebec. I was provided with a hamper of solids and liquids for the inner man, and a sufficient supply of paraphernalia to start a fishing tackle store. Brissette was awaiting me.

"Bon jour, bon jour, mon cher ami; we mek start rat off for quick."

Dipping his fingers into the *benitier*, which always has a conspicuous place in the home of the *habitant*, Brissette devoutedly made the sign of the cross; and with a wish from his wife for our success and safe return we took our departure for the flat water of the river, some distance below his house.

On our way to the landing, near the deep pool where the rapids end, we passed through nooks and vistas in glade and mead that gladdened the eye; where nature in her seeming indifference and drowsy neglect furnishes many artistic sights. The timid brown thrush is startled by our intrusion and flits into the denser growth beyond, and the bobolink sings his joyous, rollicking notes in the meadow. All this seems lost on the matter-of-fact Brissette, the patient basket maker and successful angler; perhaps because it is a part of his everyday life.

At the landing the trolling rod of split bamboo is assembled, the multiplying reel is well secured in its place, the threadlike, silk waterproof enameled line is extended through the guides, and a latest pattern of trolling spoon is attached. Brissette scrutinized everything closely without saying a word, but it required only an indifferent mind-reader to see that he was not favorably impressed. As we took our places in the boat he said,

"Ver' nice, dat tings, ver' nice. He don't fool 'longe, plobly, don't he, hein?"

Feeling entirely confident of giving him a surprise I was content to make answer,

"Well, we'll see, Brissette, we'll see."

The oars were in the hands of a master. The boat moved as smoothly as a swan on the surface of the water. The speed was neither too fast nor too slow. Seventy-five yards of line were slowly paid out. Every nerve was tense, and anxiety waited on expectation. Slowly the mile was covered, but no pirate of the waters seized the tempting lure. My faith in the burnished gold and silver spoon weakened after going a few miles, and I asked Brissette to desist from rowing until I mounted a phantom minnow.

"Looks lak he no wants de jewelry mek on de State, hein?"

"Well, Brissette, your 'longe may not be so highly educated as ours, but all the same I think I shall yet tempt one."

"Plobly," answered Brissette, with deep skepticism.

I raised and lowered the tip of the rod, describing the tangents of a circle, but all to no purpose. We covered 5 miles without a rise or a sign. I discarded my phantom minnow for a St. Lawrence gang, and we covered more miles without encouragement or reward. At the turning point we neared a few spreading elms and I suggested to Brissette that we go ashore to eat our lunch.

Climbing the precipitous bank of the river we saw murky clouds rolling toward the zenith from the Western horizon. They were frequently intersected and illuminated by zigzag chains of lightning. It was evident that a heavy shower was not far off and we deemed it wise to seek the shelter of an outlying barn some distance away. We had just begun to dispose of our refreshments, seated on mounds of sweet scented, newly gathered hay, when great rain drops beat a restful tattoo on the roof. The wind grew in intensity and volume and soon we were in the midst of a blinding summer shower, punctuated by the flash and roar of the artillery of the clouds. The face of nature was thoroughly washed, and after the passing of the shower, vegetation appeared an intenser green.

Luncheon was leisurely disposed of, together with something of a liquid nature, which had a happy effect, when Brissette broke in with,

"Bah gosh! ah'll tole ho" hwomans we go for get big 'longe; for big tam. We'll fin' big tam for sure!"

"Yes, but we haven't got our big 'longe yet."

"Certainement! Certainement! Des 'longe he no lak for to heat de jewelry tings. He lak it de chub bettaire."

"Well, Brissette, I don't know but you are more than half right. If you will rig up a chub for me your way, we'll try our luck with him."

"*Non, non, mon cher ami!* Brissette mak' it de boat go long sof' and easy lak. He no feesh. *Nous ne comprenons pas* for mak dat wheel machine go on dat leetly feedle steeck."

"Oh! You may row the boat just the same and I will use the rod and reel. I only want you to get the chub and put him on the hook for me your way."

"I no lak it dat way, me. I go on de store for melasses and de docteur he come and he say, 'Brissette, I go for 'longe las' week. I don't get one. For how you feex it de bait on de hook for catch him?' De ministaire he say, 'Brissette, for how you coax de 'longe? I feesh, one, 2, 3 tam, and don't see 'longe at all.' De Heenglishmans in village he ver' smart; he know every tings. He say, 'Brissette, we go feesh wid you some tam, some day, noder day.' Brissette no keep it de school; Brissette he no go!"

"Very well, Brissette, I will adopt your method. You rig up a bait your way, and on our way back I will do just as you direct."

"Rain look mos' gon' by. I go on de brook for 10, 15 minutes; den you come on de boat."

The time had passed, the rain had ceased, the air was refreshed and agreeably tempered. Meeting at the boat by appointment, Brissette exhibited a chub at least 10 inches long, which he had caught in the brook, and which he said was to be my bait.

"Great Scott! Brissette, you don't mean it! Why that fish is almost large enough to carry home to stuff and bake. It will frighten any 'longe out of his wits!"

"You for do my way, hein? Well, Brissette acquaint wid dese 'longe and he know what he lak' *pour manger* for him supper."

While engaged in this conversation, Brissette was mounting the chub. He peeled and sharpened a small sapling with which he made a perforation from the head along the backbone to the rear of the dorsal fin. Through this he passed a copper wire which he made thoroughly secure to a hook large enough and strong enough to hold a shark. He then withdrew the copper wire until the shank of the hook was drawn into the opening made by the sapling, and so concealed in the body of the fish. He next passed the point of the hook through the body midway between the dorsal fin and the tail and gave it a twist, or bend, which would cause the chub to revolve when drawn through the water. He then passed the free end of the wire twice through the lips, effectually closing the mouth so the bait would move through the water easily and without injury; and finally he connected it with the chain of swivels attached to the end of his line.

He cast the bait thus prepared several times into the water and drew it toward himself to see if it revolved properly while being drawn through the water. Everything being satisfactory, Brissette said,

"We now go for beeg 'longe; we get him for sure."

"Well, I am glad your courage is good, Brissette; but I can never get that big line of yours on my reel. What shall I do?"

"Hole' heem in your han's. When big 'longe eat him and run, let him go, pull heem in, let heem go some more; bimeby he get ver' tired."

"Yes, but how do you do when alone? You can't hold the line and row at the same time."

"Hol' line in mout'. When 'longe come, stop row, take hol' on line."

Diplomacy, persuasion, and importunity were brought to bear, and after a great deal of remonstrance and with evident misgiving on his part, he at last consented to let me use my rod, reel and line, on the strongest assurance of their strength and reliability, and that I would be neither displeased nor disappointed if I hooked and then lost the largest 'longe through my own inability or the breaking or failure of my tackle.

With this concession and understanding, we set out on our return trip. Obeying the instructions of Brissette I paid out only 25 or 30 yards of line. We carefully skirted the lily pads, giving special attention to the deep pools where the water had cut away the banks of the river, and to the darksome reaches of water beneath the overhanging growth of water brush and other foliage. Mile on mile we slowly covered, with expectation constantly keyed up to intensest pitch, but all to no purpose. We came in sight of the wide and deep pool at the place of our departure near the end of the rapids without any attack on our leviathan bait. Brissette's volubility had ceased and anxiety was depicted on his countenance. We were gently sweeping around the other side of the pool when I ventured to say,

"Well, Brissette, it begins to look doubtful if your prediction will be fulfilled today. The big 'longe don't seem to want to call on the big ch——"

"Hold on, Brissette, hold on! We've struck a snag!"

Whiz-izz-izz-zz-z went the reel. The fight was on, and we were launched at once into the storm center of exciting sport.

The mighty fish threw his weight on

the rod and it yielded to the strain in graceful ellipse. Away he went down stream, pulling the boat after him as if it was drawn by a stout pony. The strain was too great and he hurled himself defiantly out of the water, the embodiment of untamed fury and piscatorial ferocity.

"*Mon Dieu! Mon Dieu!* but he is de bigges' fader of dem all! Nex' tam he come he eat up your leetly string and feedle steeck and laf at Yankee man from State! Brissette mek him cool off and go 'long home wid him for sure."

"Just wait a little, Brissette, and see what the Yankee man and his fiddlestick will do. He'll cool him off all right."

Down to the bottom went the 'longe to sulk. A few gentle turns of the reel and like a flash out again came the tiger of the waters, shaking his head to free himself from the cruel barb; but the multiplying reel and the resiliency of the split bamboo rod gave him no slack line and consequently no chance to escape.

"*Sapristi,* but I nevaire see like dat before me! One leetly feedle string and one leetly feedle steeck mek hold mos' bigges' 'longe as ever was."

"Oh! I'll show you before I get through what the little fiddle string and the little fiddle stick will do."

Meanwhile his royal majesty made another drive away from the boat with great speed and power. To the resistance of the drag on the wheel I added the pressure of my thumb on the line, but he never ceased in his flight until he had taken out some 40 or 50 yards of line. He then started on a circuit of the pool, which I endeavored to check by giving him the butt of the rod and by reeling in whenever for a moment he desisted from pulling and tugging. Twice during the circuit he essayed the aerial act, but with less impetuosity and violence. It was easy to see that the severe strain of the rod was telling on his strength. He turned about and made another wild rush as if to pass underneath the boat, but reeling in quickly and putting pressure on the rod I frustrated his plan and prevented the line from getting entangled with the oars, as would otherwise probably have been the case. That seemed to infuriate him anew and again he essayed to leap out of the water as his only hope of escape; but he was unable to force more than his head and back above the surface of the water.

Alas! good fighter! Alas! mighty warrior! All danger is past and it is only a question of patience, care, and time before your royal sway is at an end.

The fight was fast and furious, permitting of no conversation nor idle banter. Brissette, while carefully managing the boat, did not for an instant cease to regard the, to him, unequal contest with an intensity of interest bordering on enthusiasm and amazement.

"Ah! Brissette," I ventured at last, "see the big fellow is getting tired. Now what do you think of the fiddle string and the little fiddle stick?"

"Bah gosh! feedle string and feedle steeck all right when Yankee man play de feedle. Bah gosh! I nevaire see like dat, me." This by way of compliment and praise, for your Frenchman is nothing if not polite and complimentary.

"Thank you, Brissette, but we haven't got him into the boat yet."

"For sure, our 'longe! I jomp in wataire and pull him on shore."

"Well, not just now, Brissette. He is cooling down all right, and when all the fight is out of him I will lead him around to the edge of the boat. Then you can slip your thumb and fingers into his gills and lift him in."

Ten minutes more passed and the struggle was at an end. The fierce fighter could be led about as gently as a fingerling. I reeled in the line. As the 'longe neared the gunwhale the hand of Brissette laid firm hold on the gills and soon the monster was writhing on the bottom of the boat. A merciful blow at the base of the skull ended the struggle and Brissette pulled for the shore.

As the shadows of evening gathered, a proud procession moved through the village street, to the surprise and wonderment of passers by, who were generous with congratulations and praise. At last the village store was reached and the scale registered 28¼ pounds as the weight of our prize. I returned to my home with pleasant recollections, well content to have spent the day on Pike river with old Brissette.

Parke—I believe in letting my son see life, so the other day I took him through a gambling hell.

Lane—I did practically the same thing; I took mine across the water in an ocean steamer.

IF YER DON'T GO WE SHOOT.

FIRELIGHTING UNDER FIRE.

A. S. DOANE.

One evening late in March, the poacher's pardner stood in front of the camp, watching the Sound. He was a tall man, weighing 185 or 190 pounds, but so finely proportioned that he looked slight when contrasted with the poacher's shorter and more bulky figure. The pardner wore long rubber boots, an old pair of corduroys, patched with shot bag, a red sweater and an old shooting jacket. A tarpaulin hat and 3 weeks' whiskers completed his costume. His most striking characteristic was a missing left eye. The remaining eye was of a peculiarly chilly, steely blue. "You got a eye like a fish," the poacher had once told him.

There was not a breath of wind, not a ripple stirred the water. For once Sound and sedge were both quiet. The sun had gone and the last rays of twilight were fast disappearing.

"What you make of it?" said the poacher, as he joined him.

"I make nix," said his pardner. "Not a thing in sight except those swan," he added, as he pointed to a long streak of white, looking more like a vast bank of snow than wild fowl.

"Well," said the poacher slowly, "we kin make a night's work there."

"But we got no big shot," objected his pardner.

"Don't need any," said the old man shortly. "I'll put you so clost you kin pick 'em up in your hands. Jest like ducks when they see a light."

"Too bad the ducks are gone," said the younger. "We were making all kinds of money."

"Yes, 'tis too bad, but get the light and the guns in the skiff. We got to go and git 'em and be back here 'fore the moon rises. We got 5 hours yet; but they must be all of 2 mile off."

At a little island a mile away half a dozen float houses were pulled up against the marsh and half a dozen big sail boats lay at anchor. Preparations of quite a different kind were making for the night. The occupants of the float houses were battery shooters. Two or 3 men were loading Winchesters; others were loading shot gun shells with buck shot and slugs made from net leads, which another man was chopping up with a hatchet. The talk was loud and indignant. Contrary to his usual custom the poacher had kept off the club marshes the preceding 2 months, and had been sneaking and firelighting the raft ducks; and so successfully that the ducks had finally left that part of the Sound. Naturally the battery shooters were wrathful; their business had been broken up.

"Why doesn't he stay on the marsh?" growled one.

"It's all that cussed pardner," said another. "He always did stick to the marsh until he come up here."

"Never mind," said a third, "either we git them to-night or make 'em so sick they won't do no more lighting."

"That's the stuff," chimed in a man with a rifle, "make 'em sick, and sick enough to die, if we kin."

About an hour later, with a powerful reflecting lantern on the bow of their skiff, the poacher and his pardner were shoving down on the big raft of swans. It would have been a wonderful sight for an artist. The long, bright beam of light, gradually widening as it left the boat, showed everything with startling vividness. The brown sedge on the edge of the marsh, the frightened swans like great movable bundles of fleece, now swimming away and now bunching and approaching the fatal light; even the sandy bottom of the Sound, all were distinct. The poacher guided the boat with his long shoving oar. His pardner was forward, gun in hand. They could see the little beady eyes of the great birds. Silently the boat glided still nearer. The swans bunched again.

"Now," said the poacher, dropping the stick and picking up his gun. The 4 reports followed one another in rapid succession. Half a dozen large bunches of white, showing plainly on the water, and 4 or 5 cripples paddling for the marsh, told of the execution they had wrought. The pardner picked up the stick and pushed to the nearest bunch and the poacher pulled it in the boat. They passed to the next, where 3 lay together, and got them. Then came the reports of half a dozen guns and rifles and the air was full of slugs, bullets and big shot. The poacher was overboard in an instant, only his head showing above water. His pardner reached for his gun. The rifles still cracked and the bullets whistled.

"Drop it, man! Put out the light and lay overboard," said the poacher, quickly. As his pardner reached for the light, a jagged piece of lead, fired from a shot gun did his work for him. He was at once in the water.

"Now," said the poacher, "git them dead birds inter the boat and pull her on the marsh. Maybe they'll go away."

Both men were perfectly cool; they had

"been there before." The others, now the light was out, had nothing to shoot at, but they knew the poacher would go to the marsh, so they shoved down hard for the shore. They meant business.

The poacher and his pardner pulled their skiff into a little slash, concealing it as well as possible, and taking their guns, squatted in the long grass, about 10 paces from the boat. They were on a small sedge island. Within 5 minutes their pursuers were on the island, too, holding a hurried consultation. It was one thing to shoot at a light 200 or 300 yards away; but quite a different proposition to follow up 2 desperate men, armed with shot guns, the deadliest known weapons at close range, through thick sedge and rushes. The poacher was popularly supposed never to miss a duck, no matter how dark the night; and his pardner was believed to be a fugitive from justice. The majority favored letting things go as they were and returning to their float houses. One or 2, however, proposed to burn the sedge and run out the fugitives. The debate waxed warm. An accident decided the question. One man thoughtlessly struck a match to light his pipe. The skiff, full of dead swans, with the shattered lantern still hanging on the standard, was plainly visible. There was a unanimous cry:

"Let's take the skiff and leave 'em to swim home."

Willing hands seized the skiff. The poacher and his pardner cocked their guns. His pardner turned his single eye on the poacher.

"Talk to 'em," he whispered, briefly. "If you don't, I will."

The poacher half rose and his voice was hoarse: "See here," he said, "you men has messed me all up enough fur once. Now git and don't furgit to leave that skiff."

He paused, and his pardner came to his assistance, adding, in a hard metallic voice that vibrated with half suppressed rage,

"If yer don't go, we shoot."

The pursuers were clearly at a disadvantage and saw the point at once. They were at the water's edge and their figures showed plainly against the sky. Their enemies were well hidden in the thick sedge. Without a word each man got in his skiff and shoved off.

"Now," said the poacher, "carry me to the boat and shove for the main shore and a doctor."

How that trip was made will never be known. The poacher was full of big shot. The same load that put out the light, had sent a piece of lead through his pardner's left arm, making an ugly flesh wound. A rifle ball had grazed his hip. Nevertheless, the trip was made, and before daybreak they were well on their way back to their shack. The poacher cursed freely all guns, gunning and gunners, particularly battery shooters. His pardner's only comment was,

"There is a law of compensation." The poacher broke off suddenly,

"What's that there mean?" he asked.

"Oh," said his pardner, carelessly, "it means things always break even. If the rich man gets his ice in the summer, the poor man gits his'n in the winter." The poacher grinned.

"I reckon we be pore enough, all right, if that's it," he said.

A swarm of bees chased Willie,
Till the boy was almost wild,
His anxious parents wondered
Why the bees pursued the child.

To diagnose, they summoned
Their physician, Dr. Ives,
"I think," he said, "the reason's clear—
Our Willie has the hives."—Widow.

A DECEMBER DUCK SHOOT.

A. C. GOODCHILD.

Dick, waiting in front with the team, found waiting tiresome. At times he viewed the prospects which our trip offered us; but mostly he watched the Eastbound shadow of the old dial in the garden. The afternoon was wearing along and he was becoming anxious; for the 30-mile drive to our destination would already, if everything went well, carry us some hours into the night.

While he was thus occupied I appeared from around the house, bundled dog, guns and myself into the wagon, and we at once took the road. Up and down, past fertile nooks and grassy hillsides we drove, chatting the while, until the short twilight gave place to the splendor of a full moon. Southward swept the white line of the coast road 20 miles, and down it we went.

Soon the horses were plunging across the Arroyo Grande; luckily there was not much water. Safe across, we continued to turn mile after mile. The tide kept steadily rising and drove us higher and higher on the soft sand. We pushed on as best we could until we came to the outlet of Oso Flaco lake. Without crossing we followed it over the sandhills to the lake itself. Another 8 miles, this time over a good road, took us to our destination, an ideal place, under a clump of beautiful trees where water and fuel were in plenty. It was not yet 10 o'clock.

In a wonderfully short time camp was made, blankets spread over our collapsed tents, and the horses attended to.

After breakfast next morning some little time was occupied in putting things shipshape. Then with guns in hand we sought the ducking grounds; Dick going upstream, I downstream. The day came slowly out of the East, and presently the dull report of a gun came over the marsh. The work of the day had begun; the ducks were flying. I wondered what Dick had shot, or shot at; but then it was my turn and soon Jack was retrieving a plump spoonbill. Some people never use this bird, but when it has attained good condition on a freshwater marsh, the spoonbill, or shoveler, will rank with the best widgeon. Then almost directly a flock of pintails came flying over me. So noiseless was their flight, however, that by the time they had attracted my attention and I had brought my gun to bear they were well nigh out of range of the following No. 6's.

The flight did not last long and I made slow progress in increasing my bag. Only one solitary widgeon did I shoot, after walking an hour, downstream. I continued to walk leisurely down when swish went a flock of teal some 70 yards from me at full speed. I gave them a salute and to my astonishment 2 responded to the call of my left barrel. Before I had extracted my shells some widgeons came flying by, and in the confusion a bulged shell stuck. Eight widgeons went by within easy shot before I could reload.

While I was engaged with that vile shell I heard the call of quails on the hill opposite. There being no ducks in sight I was soon scrambling up the hillside. Jack worked all through the cover but without finding a bird and presently I was retracing my steps down the hill, a sadder but a wiser man. At the foot of the hill was a large jungle of rushes through which ran winding passages. In these Jack separated from me, but on finding my way out I observed him by the water's edge pointing, as staunchly as could be, some butterballs in the water. I flushed the ducks, cut down 2 with my right barrel, and another with my left. For the first 2 Jack made but one trip; for though a pointer the veteran dog does not hesitate to retrieve from water.

Shortly after, I walked downstream. Away, as far as I could see, several flocks of ducks circled round and round. After a while one flock came nearer. I advanced with excessive caution, but unfortunately did not mark them down as well as I might have done, and they flew their way unharmed. Presently I arrived at a bend of the slough, and, having placed my canvas decoys on the mud, I nestled behind a fence which afforded an excellent view of either side. At last I perceived a flock of ducks, and their flight was toward me. Presently 2 birds came down, one a gadwall, the other a female mallard. I shot the gadwall, which flew on, evidently hard hit. When he had flown 100 yards a pigeon hawk appeared, flying from right angles at full speed, struck my bird, and sent him stone dead to the ground.

By that time it was getting near noon, and I proceeded to shoot my way back to camp along the water course. After a while from behind some tules there fluttered up a teal which, crossing me, presented an easy shot, and I brought him to grass. Shortly after, I got up some others, but with less favorable results, only one finding his way into the bag. On reaching camp I found

Dick had succeeded in shooting quite a respectable bag of ducks and a few snipe. Among them was a magnificent redhead. This bird used to be quite plentiful, but of late years seems to have been supplanted by the canvasback.

After luncheon Dick was so anxious to return to the snipe that, hurriedly supplying myself with some light shells, I joined him. No sooner had we begun to walk the bog than a chuckling snipe went sailing away from behind some high grass and out of gun shot. Three others got up, and we each got one of them. Presently we flushed 2 more, and I just caught a glimpse of the hinder one as he went around a clump of willows. I turned off to work up wind. Dick continued down and bagged another. Then I missed 2 long shots. A little farther on another bird rose from bare ground at my approach and fell, after a twisty flight, to my second barrel. Thus we kept on, I frequently missing. After bagging 4 I decided to return to the ducking grounds, thinking I could better attend to ducks; nevertheless I had a merry 15 or 20 minutes with the snipe.

In making my way through the undergrowth near camp I unexpectedly came on an open place, whence a flock of teal got up. I fired twice, cutting down a brace. Soon a lone widgeon came in sight, speeding down the line. At my first shot he only turned his course, but my left brought him to the water.

I sat in my blind and watched some moor hens on the farther side and the arrival of a diver. It was one of those days of excessive quiet and restfulness; every cackle of the mud hens and even the dip of the diver were heard. At length a faint breeze brought, of a sudden, a sound of wings to my ears. My curiosity was aroused and I looked up. Upstream and just out of gun shot went flying a bunch of plover.

I pulled myself together, and almost directly there came a deafening roar, as a mass of wild fowl like a dark cloud for a minute obscured the sun. Then there were alternations of darkness and light, the wind increased to half a gale and the flight kept on. The surf on the beach roared louder and louder as the wind increased. The air seemed full of ducks. The fun grew fast and furious, and many a sprig, widgeon and teal made the fatal mistake of venturing too near. In an hour the gale abated and the flight was over.

I pushed my way through the close tules for the path that led to camp. On coming suddenly into the open I surprised a flock of geese feeding near, where wild celery grew in profusion. They flew straight away, then wheeled and sailed over a hill in such a way as to indicate that they would alight. Around the hill I went and found them as I had anticipated. I tried to reach a bush 20 yards distant that would afford a fairly good hiding place, but before I could get there they flew away.

Right there should have ended my wild goose chase; but, no, the afternoon wore on to its close and I chased and chased and the geese flew hither and thither until they eventually disappeared in the direction of the ocean. The sun had gone down, and disconsolately I trudged through the swamp to camp.

The following morning I awoke to find the weather cloudy, and a light wind from the South threatening a downpour of rain. As soon as it was light we started out. We skirted the little wood below camp, but kept along the water course where it was possible. Out of a reedy pool I got a mallard and his mate. When we neared the beach we saw flocks of plover, avocets and curlew.

Separated from the beach only by a stretch of sand lie 2 freshwater ponds, and to these we directed our steps. Several jack rabbits were seen and cottontails were evidently plentiful. At last we reached the sand dune next the more inland of the ponds. As we peered over its top we saw hundreds of canvasbacks and a flock of white fronted geese scarcely 10 yards away; the ones of the previous evening. It was my turn now.

While Dick ran to get between the birds and the sea I singled out a big goose and fired. Then, without releasing the trigger or waiting to see the result, I worked the slide until the magazine was empty. Result, one goose and 16 misses. Meantime the canvasbacks and geese were flying in the direction of Dick. At last 2, 4 and then another went toppling down almost before I heard the crack of his first shell. Jack cleverly retrieved my goose.

Five hours later our buckboard again stood in front of our home.

A theater party is a mistake: If the play is interesting, the people bore you; if the people are interesting, the play bores you.

A FLORIDA HUNTING GROUND.

W. N. PIKE.

It would be difficult to imagine a more delightful experience than a hunting trip to Florida in midwinter, providing always one is fortunate in the selection of locality, boarding place, guide, etc. The delicious Indian summerlike days, the gorgeous sunsets and the hardly less radiant moonlight nights; the balsamic breezes of the pine forests, the never fading verdure of the palms and magnolias; the wild flowers under foot and the laughing, dimpled lakes and lazily winding rivers; all combine to form a picture in the vivid contrast to conditions existing at the North during winter's stern reign.

A BOAT BUILT TO FIT.

There are large sections of the State which are annually over hunted and others where tourists swarm, where civilization obtains, and from which all game worthy of the name has long since fled. There are other localities where game is sufficiently plentiful to suit anyone but a hopelessly confirmed game hog, but where "grease and grits" and other gastronomic horrors of the Florida backwoods kitchen offer a barrier which no self-respecting stomach can surmount. As to guides, there are good, bad and indifferent ones in all parts of the country; but it is my good fortune and that of a limited number of other readers of RECREATION to know of a sportsmen's resort in Central Florida which can be unreservedly recommended in every way. I refer to The Jolly Palms, at Mohawk, Lake county, kept by Charles H. Stokes.

Mohawk is a tiny place, situated in the so called Apopka mountains, a chain of sandhills 100 to 300 feet high, about 6 miles wide and 12 miles long. These hills are clothed from base to summit with long leaf pine, with some oak intermingled, forming open, parklike woods, carpeted with a scant growth of wiregrass, with here and there clumps of palmetto, plum thickets, etc. Many of the valleys are occupied by lakes of varying sizes, the waters of which are soft, pure, of crystalline clearness and abound with big mouth bass, bream, perch and other fishes.

The Jolly Palms is built on the side of a hill, with its grounds running down to the sandy shore of one of these beautiful lakes, from which bass of over 10 pounds in weight have been taken. A footbridge extends out about 100 feet from the shore to a combination boat and bath house. The bottom of the lake is of white sand and the water is so clear it looks green inside the structure. To bathe in those soft, limpid waters on rising in the morning, or after a day's hunt afield, is an invigoration and a delight which must be experienced to be appreciated. Orange

and other tropical fruit trees, shrubs and vines, are scattered about the grounds, forming a beautiful and interesting setting for the main cottage and its annex.

Although on a railroad and easily reached from Jacksonville, Mohawk is entirely off the beaten lines of tourist travel, and is in the midst of an extensive territory which has never been overhunted. Quails are plentiful in the surrounding hills, and the open woods make the hunting of them easy and pleasant. The man who has never hunted quails under a mid-winter Florida sky has missed one of life's best chapters. There is also a fine snipe marsh only 4 miles away on the borders of the great Lake Apopka, the second largest lake in the State, being 50 miles in circumference. Large flocks of ducks congregate on that and adjacent lakes, rabbits, fox squirrels and some deer are found on the hills, while the lower and more densely wooded tracts, hammocks and swamps harbor wildcats, foxes, raccoons, opossums, cat squirrels, and an occasional panther or bear. A light cypress boat, built to fit a wagon, makes accessible the waters of any of the numerous lakes surrounding and within easy driving distance of The Jolly Palms; and there are days when the bass in some of those lakes would sorely tempt the staunchest member of the L. A. S. to become a confirmed fish hog.

Next to the pleasure of legitimately hunting and killing one's game is the satisfaction of having it properly cooked and served. This Mrs. Stokes can do in a manner calculated to tempt the appetite of a dyspeptic or to satisfy the most epicurean taste. In fact, the dining room is one of the strong attractions at The Jolly Palms. It is a revelation and a delight, not only in the variety and palatableness of the food served, but in its scrupulous neatness and attractiveness in all respects. No substance from a "tin cow" appears on that board, but instead the rich product from genuine Jerseys, which gives to coffee and breakfast cereals their choicest flavor. Charlie Stokes himself is a past master of the art of camp cookery, some of the repasts *al fresco* over which he was the presiding genius being among my most cherished recollections.

Twelve miles South of Mohawk lies the beginning of what is probably the best hunting ground in Florida, the great Green swamp, in which the weird and winding Palatlakha river has its source. Although called a swamp it is not one in the true sense of the word or as we understand a swamp in the North. Instead it is a vast stretch of shallow water filled with innumerable islands varying in area all the way from the fractional part of an acre to several hundreds or thousands of acres. The water is not stagnant, but moving, soft and pure enough for drinking, and shallow enough in most places to admit of wading from island to island, the bottom being hard and sandy. The islands are covered with forests, some with pine or cypress and others with a variety of semi-tropical trees, often overrun with a tangle of vines and creepers, and abound in a great variety of game; bears, panthers, deer, wildcats, raccoons, rabbits, cat-squirrels, wild turkeys, quails, wood ducks and sandhill cranes. Otters and alligators also inhabit portions of the swamp and are hunted for their skins by a few native trappers who live permanently in the swamp and know its fastnesses like a book.

Camp hunts to this swamp are a feature of the winter sporting season at The Jolly Palms. A tent and full camping paraphernalia are taken along, and every preparation is made for comfort during a sojourn in what one of New York's best sportsmen has declared to be one of the finest natural game preserves in the United States. Such a hunt is sure to be a novel experience to anyone from the North. The strange cries of waterfowl, the hooting of owls, the gobbling of wild turkeys, the clarion whooping of sandhill cranes, the snarling of wild animals and the occasional bellowing of alligators, together with the quaint vernacular and unique idioms of speech of the native trappers, employed as guides, will make an impression which will linger on memory's walls a long time. Venison and its rival delicacy, broiled breast of sandhill crane, with roast turkey, quail and black bass are features of the menu on these camp hunts.

If you are contemplating a winter vacation in quest of rest, health, or sport, you will not be disappointed in The Jolly Palms, unless you are a game hog. The proprietor is a member of the L. A. S., endorses the aims and principles of that organization and will not knowingly extend hospitality to specimens of the genus *Homo porcinus*. Write in advance for accommodations, as only a limited number of persons can be cared for at one time. Extremely modest claims are made for this resort by its proprietor, with the result that guests are treated to the surprise of finding everything better than is promised. Mr. Stokes is an expert photographer and has a laboratory and dark room for the use of guests photographically inclined.

To reach Mohawk from Jacksonville take the Seaboard Air Line Railway to Tavares, changing at the latter point to the Tavares & Gulf Railway, which will leave you at the gate of The Jolly Palms. Seaboard Air Line trains are run from

New York through to Jacksonville without change, making the trip between the 2 cities in about 30 hours.

If you wish to combine the pleasures and benefits of a sea voyage with your trip take passage at either Boston or New York on one of the many fine steamers which the Clyde S. S. Co. runs to Jacksonville. These steamers are really floating hotels, equipped with the conveniences and luxuries of the transatlantic liners, making passage on them not only comfortable but enjoyable. A stop is made at Charleston *en route,* furnishing a pleasant break in the journey and an opportunity to view the sights of that old and interesting city of the South; and the trip up St. John's river, from its mouth to Jacksonville, is full of interesting and novel features, to no one more so than the real sportsman just released from environments of ice and snow.

LOOKING AHEAD.

C. C. HASKINS.

Dark is the day; the fierce wind blows,
And the earth sleeps cold through the wintry gloom;
Bare are the trees and the birds have flown
To the summer land where the roses bloom.
Yet bright is the blazing, cheery grate,
And cosy the seat near the embers bright;
While over the mantel, awaiting the spring,
My camera rests through the winter night.

The swaying limbs of the old roof-tree
Are hoarsely rasping the ice-filled eaves,
And the breezes piping their whistling song,
While snowflakes fall like the autumn leaves.
Yet here, where the grate's illuming fire
Bids comfort reign and the shadows grow,
My faithful friend, old Don, is stretched,
Beside my feet in the cheerful glow.

The windows rattle in noisy glee
When the pelting hail comes swiftly down;
And the sleighs go by with their tinkling bells,
With songs and laughter and shouts from town.
Yet calm in the genial crimson glow
I'm dreaming of days that will soon be here,
When storm and winter have had their day
And spring will come with its joyous cheer.

The leaves now sleeping will soon be born,
The flowers with fragrance will scent the wood;
The bright plumed birds will fill the air
With color and song in their gayest mood.
The sun with a genial warmth will shine,
The brooks will laugh through their foamy crest,
Then Don, good fellow, to hunt with the lens,
We'll seek in the wilderness nature and rest.

BABIES FOR SALE.

I hand you herewith 3 photos of a pair of cougar kittens, which I captured a few days ago. They are growing rapidly, and at present are great pets. This being my first experience with young lions, and, remembering the mother as she appeared when I ran into the nest, with the family at home, I deem it wise to dispose of these little chaps as soon as possible. If anyone wishes to buy them, I should be glad to hear from him.

E. B. Simpson,
3206 North 27th St., Tacoma, Wash.

Not long ago a coroner's jury in Ireland delivered the following verdict on the sudden death of a merchant who had recently failed in business: "We, the jury, find from the doctor's statement that the deceased came to his death from heart failuse, superinduced by business failure, which was caused by speculation failure, which was the result of failure to see far enough ahead."—Argonaut.

"So you are going to get an automobile?"
"Yes; the doctor says I must walk more."—Washington Star.

A DAY'S "SPORT" ON THE YUKON.

Clark Ellsworth, R. R. Russell, R. T. Rogers. See page 458.

MY CHRISTMAS TURKEY.

JAS. CAMPION.

The night before Christmas I stepped off the train at a village in Webster county, West Virginia, in quest of turkeys. I had received a letter from a friend stating that turkeys were plentiful in the hills and that if I should arrive in time I would have some good shooting. Accordingly I packed my Winchester .30-30 in its case and embarked for the mountains. At dawn Christmas morning we finished our breakfast of coffee and roast chicken and departed for the woods, promising the women we would, if possible, have the king of birds on the table for dinner.

John went up the right fork of a small creek and I the left. There were plenty of turkey signs, but no birds, and the sun was high when we emerged from the creek bottoms and climbed to higher ground. Everywhere nature was in her glory, the warm sun bringing forth all the birds, which darted in and out among the golden and russet leaves of the oaks.

John had stopped to light his pipe and was in the act of striking a match when I heard a rustle in the bushes to the right. I wheeled around in time to see a turkey dash into the bushes, followed by a charge of shot and a rifle ball, but he escaped.

It was then 10 o'clock, and we were beginning to think that luck was against us. We determined to stay in the game, however, and proceeded farther into the woods in the direction the turkey had taken. In about 10 minutes we came out in a little open spot in the woods. This clearing in turn opened into another, and I was walking for that when my friend grasped my arm.

"Down, quick, Jack!" he said, as he dragged me into the underbrush. "Look yonder!"

I followed the direction of his arm, and beheld, perched on a tall, dead pine at the other end of the clearing, and outlined against the blue sky, a magnificent golden bronze turkey. The splendid old fellow seemed to be excited about something, and was craning his neck to the North. The distance was about 200 yards, a long shot. I wished to steal up on him and lessen the distance, but my friend would not listen.

"I have been in these hills long enough to know yonder bird, Jack, and if you try to crawl up on him we will be without a Christmas dinner. Conditions are against you. The minute you emerge from the bushes he will see you and it will be all over. Try him from here with that little popgun of yours."

I had great confidence in my Winchester. I knew that if I held it right it would do its work. Using an old stump for a rest I took a glimpse along the Lyman sights and fired. A second later I was greeted with a few choice words not in the Bible.

"You've missed him, Jack! You fellers from the city don't know how to shoot!"

He was partly right. We began to look at each other uneasily. It was near the noon hour and the stove in one West Virginia home was waiting. John shot a brace of quails by way of something to take home, and, giving up the turkey hunt as a bad job, we retraced our way homeward.

The sun was directly overhead, casting its warm rays on the hilltops, as we came out into the creek bottoms, when we heard the welcome "put, put, put," of a turkey. It was repeated again and again, the sound coming from the direction of a clump of chestnuts, and we soon made out another large bird. The distance was a little longer than the first shot, and the conditions were the same as in the first case. I crawled in behind a pine, taking aim at the center of the slowly waving mass. The rifle had scarcely spoken when my friend greeted me with an altogether different cry.

"You've got him, Jack!"

I saw the turkey come down like a bag of sand. We ran up to the tree, and, great Scott! No bird was in sight! I dropped my gun in disgust. It seemed as if I had hunter's luck again, when suddenly, 100 feet away, I saw the body of that great, proud turkey.

The ball had entered his breast and had come out at the other side, yet, mortally wounded, he had covered that distance! True Yankee courage! I felt sorry he should die; but so is the will of the sportsman.

It was 4 o'clock that afternoon when John, his wife and I sat down to a dinner of wild turkey, flanked with his smaller brethren, the quails; baked sweet potatoes, cranberry sauce, and pumpkin pie. It was indeed a dinner fit for the gods.

Uncle—How old are you, Jimmy?
Jimmy—I'm 13 at home, 14 at school, and 11 in the train.—Tit-Bits.

TRAPPING THE SKUNK.

J. A. NEWTON.

The skunk is a much maligned animal and by no means so pungent and aggressive as he is generally represented. On the contrary, he is a peaceable, well meaning fellow, and, normally, no more malodorous than are many rodents. True, when driven to extreme defensive measures he does what he can, and the result is often surprising, not to say suffocating. Wise trappers, however, dispatch him without any preliminary provocation of his temper, and the plan has distinct advantages. I have often caught and skinned skunks all day and gone into company at night without a betrayal of my previous occupation.

Though the skunk contributes a large proportion of the country's fur crop, even posthumous fame is denied him. Thousands who would scorn to dress in skunk skins wear his heavy, durable fur, under the name of black marten or Alaska sable.

The skunk is a true hibernator, strictly nocturnal, and gregarious when denning up for the winter. He retires about December 1st in the Northern and New England States. His trails are seen after that date only during mild weather, until February, which is mating time. When his fancy lightly turns, a low temperature has but little restraint on his movements; the depth of snow alone seeming to curtail his travel. Old deserted burrows of the woodchuck, fox and badger are appropriated. These re-established habitations may be known early in autumn by well traveled paths leading to them, and by signs of nest material having been carried in. Usually a considerable fecal deposit will be seen near the burrows, which may be identified as skunk sign if it contains a mass of undigested shells of beetles and other hard cased insects. These, together with grubs are eaten in large numbers, and form the greater portion of the animal's food in summer.

Skunks are usually taken by trapping or by digging them out. The latter method is the surest and most remunerative when they can be tracked and until the ground becomes frozen hard. Then it is often a laborious task to unearth them. Traps are more successful when the ground is bare and tracking poor; also during February, when tracks are so numerous and so many holes are visited, that it is difficult to locate the game.

No especial care or skill is required in taking skunks. Place the trap in the mouth of the burrow and cover lightly with dry grass or leaves. It should be stapled to a pole so the game may be handled with safety.

Although skunks are not credited with shrewdness in avoiding traps, they are extremely lucky in keeping out of them at times. I have had them step between the jaw and pan without springing the trap. More can be caught while entering a burrow than when coming out. Often I have run one to earth, and placed the trap with great care, only to find on the following morning that he had escaped by going around or over the trap, perhaps springing it without getting fast.

I now use a No. 1½ trap for them because the jaws strike higher than those of a No. 1; and if possible I drive stakes on each side of it against the bank, which forces the animal to walk over the snare.

To dispatch skunks I use the 22 caliber cartridge, shooting behind the shoulder. This causes a less violent death than a head shot, and often prevents any odor. In running time the best success may be had by setting traps in holes most frequented, and placing a beefbone, kidney, lights, or a rabbit's head in the burrow just beyond the trap.

Skunk hunting, like many other pursuits yielding money, breeds thieves and swindlers. There are men who will dig out a nest of skunks their neighbor has found and stopped in, while that neighbor is in quest of tools. Traps are robbed, pits sunk beyond a competitor's trap and the spoils lifted. Sometimes amateurs get fooled by thinking that a burrow at which a trap is set must contain game. They spend hours in excavating, only to discover that their greed has exceeded the return. Nor does rascality stop there. Black skunks, those having white only on the head, are scarce in proportion to the other 3 grades, viz., half stripe, full narrow, and white; and are worth 50 to 75 cents apiece more. The unscrupulous see it to their advantage to make as many black skins as possible. Therefore the buyer must be ever on the watch for half stripes which have been blackened or from which so much white has been pulled as to damage them. A good buyer is never taken in; skins that have been doctored are easily detected.

A skunk catcher need not be a nuisance to his leeward neighbors if he use proper precaution; but if he is reckless and indifferent the very dogs will resent and assail him.

FROM THE GAME FIELDS.

The man who quits when he gets enough, with plenty of game still in sight, is a real sportsman.

SPORTSMEN SHOULD HUSTLE.

Watertown, N. Y.

Editor RECREATION:

For years I have been trying to stop the spring shooting of wild fowl in this county. Last year I succeeded. Last spring our waters were alive with wild fowl long into June, and they became as tame as domestic fowl. Many of them stayed and rested. Others found choice feeding spots and returned earlier in the fall, and in larger numbers than ever known before. We had the best fall duck shooting we have ever enjoyed. We did not have to wait for cold weather to drive the ducks down from the North. We had them by the thousand from the 1st of September till our waters froze. It took me 5 years to secure this law, and I did it in the face of strong opposition; but I do not believe there is a duck shooter in the county who would consent to its repeal.

The black and grey squirrels, grouse, and woodcock, are nearly exterminated in this county and I am trying to get a close season for 2 years. Will I get it? Oh no! Why not? Everyone says, "It is a good thing. We want it. At the end of 2 years we shall have splendid shooting. Go ahead, Billy, and get it. We'll back you"; but not one in 50 of these enthusiastic sportsmen will spend the necessary time and 2 cents to write our representatives asking them to support the bill. Last year I turned out 2 pairs of Chinese pheasants. They bred and raised 27 young. These birds lived through the winter, the worst one for snow that we have had in years, without any aid by food or shelter. If this law goes through we shall stock the county with pheasants. Every sportsman in the county knows this, and is anxiously watching for news from Albany, but it is dollars to doughnuts that not one in 50 has spent a cent in the cause.

There is no county in the State better adapted by nature for fish and game than Jefferson. In Chaumont bay and the waters of Lake Ontario, from Cape Vincent to the Oswego county line, we have the finest small mouth black bass fishing in the State. From Cape Vincent to the St. Lawrence county line we have the beautiful St. Lawrence river, with its thousand islands. Once it was famous for its black bass and muskalonge fishing; but, owing to a foolish law that forbids the taking of any fish except with hook and line, it is rapidly filling with coarse fishes, which the angler does not care to catch, and which, to a large extent have driven the game fishes from its waters. Until the Anglers Association of the St. Lawrence river consents to the taking out of these coarse fishes by netting during the fall and winter, at a time when the bass are in the deep waters of the lake, their bass fishing will grow poorer each year.

These waters and the numerous lakes and creeks scattered throughout our county, make it a splendid wild fowl preserve. We have hundreds of acres of woods and covers where a few years ago there was an abundance of small game, and where if the few remaining birds were allowed to breed unmolested for a short time they would make glad the heart of the sportsman by their abundance. I presume, however, the average sportsman of the State is like the average sportsman of Jefferson; he will not help get good laws, or help enforce them when obtained. How many of you have written your representatives, asking them to stop the sale of game or the spring shooting of wild fowl? Have you? How many of you, when you see or hear of a violation of the game laws, notify the nearest game protector, and help him to prosecute the offender? Not many, Most of you sit around and kick because the State protector, perhaps 50 miles away, does not find it out and prosecute the law breakers; but let this same fellow steal your gun or dog, do you wait till some officer of the law comes around and finds it out? Oh, no! You get a hustle on and spare no money or effort to bring the thief to justice. Until the sportsmen for whose especial benefit our laws for the preservation of fish and game are made, learn to respect these laws themselves, and give our State protector the same aid and support they give the peace officers, for the enforcement of the civil law, they have no just reason to complain that our game laws are not properly enforced. I suppose you sportsmen who love to shoot and fish for sport only will at once put me down as a crank, will continue to shut your eyes, and say nothing, keep your 2 cents in your pocket, let a few cranks from each county do the pushing for all of you, and then kick because we can not push hard enough to get what you want.

The average representative at Albany is satisfied with his job. He wants to go back. If 2 or 3 cranks write him he does nothing. If 200 or 300 sportsmen write him that is different. He may need those votes next fall. The sportsmen of each county could control their representatives, but they never will as long as there are so many 2 cent sportsmen. W. H. Tallett.

NEWFOUNDLAND LAW INCOMPLETE.

Knowing your sense of fair play, and having, for several years, watched with approval your unremitting efforts to suppress game hogs, I regret noticing in your August issue that you have put the shoe on the wrong man's foot when writing about the change in the game law of Newfoundland.

The real, I might say almost the only, criminals in the wanton slaughter of caribou taking place annually in Newfoundland, are the natives themselves. In the winter months, when little fishing is done and the caribou migrate to the Southern end of the island, the natives, armed with all sorts of weapons, from flintlocks to huge sealing guns, make for the barrens and there ruthlessly murder hundreds of caribou, which are then shipped to St. Johns and other ports to be sold at 2 or 3 cents a pound. Often the meat spoils and is thrown, literally, to the hungry dogs. This is not all, for oftentimes these butchers are so surfeited with the meat, that they will kill a caribou for one tidbit. I have known of their killing 2 or 3 in order to utilize the hides for making a raft to cross Grand pond.

For every caribou killed by visiting sportsmen, 25, aye, 50, are killed by the natives, who pay no license. Furthermore, the officers of the British fleet patrolling the French shore, who pay no license fee, are great game hogs, being proud, I am told, of bags of 15 or 20 stags in one season.

A reasonable, conservative and well informed Newfoundlander, speaking to me last summer on the subject of game laws, gave it as his opinion that 5,000 or more caribou were annually slaughtered by the natives. If they did this to feed themselves no one could object, for the poor wretches live on cod 10 months of the year; but they do it for the market, wherein lies the sin. He also stated that no proper law could be framed which would pass the legislative house, the natives considering it their inalienable right to kill all the caribou they please; and any representative daring to vote against their ideas, would be sure to be dropped.

It is a safe statement to make that 99 out of 100 American sportsmen in Newfoundland keep to the spirit as well as the letter of the law, and the few infractions so far known have but served as pretexts for the passage of a most ridiculous change in the game law. To charge a sportsman $100 for a license to shoot, while the natives and the British naval officers pay nothing at all, and constantly go beyond all limits of decency in the ruthless destruction of caribou, is but another instance of the folly, of granting the franchise and a full fledged government to the most ignorant and most backward people in North America.

J. G. Van Marter, M. D.,
Savannah, Ga.

The new game law of Newfoundland provides that no resident of that country shall kill more than 3 caribou in any one year. It also prohibits the setting of snares, traps or pits for caribou; hunting them with dogs or hatchet, tomahawk, spear or with any weapon other than firearms loaded with ball or bullet; or killing them while swimming in any water.

If this new law could only be enforced, it would naturally stop the terrific slaughter of which Dr. Van Marter so justly complains; but unfortunately no money has been appropriated for enforcing the new law. There is no provision for the appointment of game wardens or other officers to enforce the law. It now simply becomes the duty of every citizen of Newfoundland to obey the game laws, as a matter of honor. Whenever any resident of that island violates the game law, it becomes the duty of his neighbors who may know of the fact to prosecute him and have him properly punished. The new law will have a wholesome effect and will greatly reduce the killing of game, but it will not entirely stop the slaughter. The Legislalature, at its next session, should enact a new clause prohibiting the sale of caribou meat or skins, and should provide for the appointment of several game wardens; also for the payment of their salaries and traveling expenses. Nothing short of this will completely protect the caribou of that country.—EDITOR.

THE SITUATION IN MONTANA.

My interest in anything pertaining to legitimate sport in field, bush or stream will never slacken. I am somewhat like yourself, having even given up my own time and pleasure to the good cause of protecting game and fish. I have not fired a shot for 3 years at game, and I feel that my hunting days are past. You may rest assured I shall always do all I can to enlist workers for the cause of game protection; but Montana is barren ground.

I have worked like a horse for the cause; not for any salary. I gave the State 2 years of my life without compensation. The State owes me several hundred dollars for cash expenditure which I shall probably never get back. I wanted to resign my position as State Warden as well as my membership in the Fish and Game Commission, because I was not willing to lend my name to a farce, such as I found our existing game and fish laws to be. I was

asked by friends to hold on until a Legislature meets that will make a law which can be enforced. The present law does not stand; neither judge nor jury can be found to enforce it; and the public is not in sympathy with its provisions. When I finally lay down my office I will make statements that will surprise you.

Undoubtedly the Lacey act will give us a good deal more ground to stand on than we have had; but what can be accomplished without funds to work with? We have no appropriation; and what can you expect of unpaid officers. The county wardens are mostly creatures of the county commissioners who elect them. Only 6 counties have wardens, and the only help we receive is from the forest rangers, who are suspended for want of funds when most needed.

I have tried hard to add members to the L. A. S., but it is worse than begging for a living. Still, I shall continue to try.

R. A. Waagner, Bozeman, Mont.

I have for a long time fully appreciated the great difficulty under which you and the other friends of game protection in your State are laboring. You certainly have about the poorest system of game and fish laws of any State in the Union, and this would seem to indicate that you have about the poorest outfit of law makers to be found anywhere on the continent. Of course, your Legislature would not admit this, but it is said that by their fruits ye shall know them. It is a burning shame that a body of representative citizens, charged with caring for the interests of the people of a great State should have allowed the game which once covered Montana to be slaughtered and driven to the verge of extinction as it has been. When we realize that probably 90 per cent. of all the farmers and ranchmen and probably 50 per cent of the business men of your State shoot or fish more or less it seems incredible that they should allow their opportunities for indulging in these sports to be swept away as they have been. Evidently the balance of the voting power is held by the miners and other laboring men, who pay almost no taxes, but who can vote as early and as often as anybody. Your law makers are evidently swayed by this element, and have failed to provide your commission with a fund for enforcing such game and fish laws as you have because these sons of toil object to paying taxes for such purposes.

Still you should not be discouraged. Public sentiment among your people is growing in the right direction and the League is leading it and developing it every day. Some of your newspapers are also doing good work in this direction and others will doubtless fall into line in time. Keep up the agitation, and in time you will be able to induce your Legislature to make the needed amendments to your laws and to appropriate money to enforce them. —EDITOR.

The above was written in in 1901 and the game laws of Montana have since been materially amended and improved.—EDITOR.

BIG GAME IN THE ROCKIES.

Donald, B. C.

Editor RECREATION:

Having received an invitation to visit a friend, who was spending the winter on his ranch, in the Rockies, M—— and I started, hoping to have a week's sport with deer and other game. We left the train on the Canadian Pacific railroad, at Armstrong, for a drive of 15 miles. Our friend, George ———, was awaiting us.

Early the following morning we started out. Jim went alone, taking a shot gun. The rest of us hunted in pairs. My companion and I found tracks so numerous it was impossible to follow any of them, so we simply walked over the scrub-covered hills until noon.

As that was my first experience in deer hunting, I was considerably discouraged. My companion assured me we would surely see deer before long. Although we beat the woods thoroughly all the afternoon, it was only to be disappointed. Toward sunset we started down the mountain to camp.

Two of the hunters were already in, having met with no better success. While talking over the day's hunt, a faint call came from the woods. On going a quarter of a mile in the direction of the call, we saw Jim, seated on a log, the shot gun across his knees, while at his feet lay a buck. Together we dragged the deer to the ranch.

I spent the greater part of the next day following the tracks of a lynx, but without getting a shot. George killed a buck about 4 miles from the house, but could not bring it in alone. At daylight he and I went after his buck.

Now it may seem an easy task for 2 men to drag a deer 4 miles, but it was among the mountains, over fallen timber and through thick scrub. We tied the deer's legs together and ran a pole through them. The ground proved too rough for carrying such a weight, so a rope was tied to the buck's head, while we took turns in dragging him. It was work all the way. Home was reached late at night.

On the last day of my stay, accompanied by another hunter, I took a new route, farther from the ranch. Until late in the

afternoon we tramped over mountains and through valleys. Then a buck and a doe were sighted. The buck was shot, but his mate was allowed to escape. He had magnificent antlers, so the head was cut off. Fitz strapped this to his back, while I shouldered the hindquarters of the deer.

It was then sunset, and camp 5 miles away. Taking a straight course, as nearly as possible, we set out. We traveled until dark through scrub, and at times had to use our knives to cut a passage. Then it was across gullies, up to our knees in snow. At midnight we acknowledged ourselves lost, but after resting half an hour we took up the loads and started again. It was then too dark in the woods to see more than a few feet ahead.

Finally on reaching the top of a hill, we were gladdened by hearing a rifle shot in the valley. We fired an answering shot, which our friends did not hear, for we were so much above them. However, we soon reached the bottom of the hill, where we stumbled into a beaten road that led to the house. Our trials were over, and so ended my week's hunt.

S. H. Currie.

MORE VANDALISM.

Nearly all the beautiful California quails and Oriental quails and pheasants that Frank Alling has spent years in colonizing on Fox island have disappeared, and it is alleged they have been hunted and trapped during the past few months by 2 worthless fellows who have been watching their opportunity to make a raid on the birds.

"It is a long story," said Mr. Alling, "but I am mad through and through, and I purpose doing all in my power to sift this thing to the bottom. Three or 4 years ago 2 worthless fellows arrived from Oregon and lived in a shack near the old tile works. They made a living chiefly by hunting and fishing.

"While I was visiting the island a few days ago several responsible people told me that these 2 men had enticed into their chicken coops the California quails I had liberated and there they deliberately slaughtered every one of them.

"Later I placed 16 Oriental quails, at great expense, on the island, and in all probability they went the way of the others. So I was informed by residents of the locality.

"These fellows left the island soon after this exploit, but they returned about 16 months ago and the residents tell me they could frequently be seen prowling over the island with guns and game bags, but the people had no idea they were slaughtering any of the pheasants that were plentiful around the tile works at that time."

A few days ago Alling took a party of young people over to the island and liberated another coop of full grown pheasants, from the Orient. While on the island he talked with several of the strawberry growers, inquiring how the pheasants were showing up this spring.

"To my surprise," said Mr. Alling, "they told me not a bird could be found on that side of the island in the vicinity of the tile works. A man living near the tile works who had been made deputy sheriff to protect these birds, and had done some fine work in that line before these 2 men arrived, came to my place in Tacoma last fall and reported to me there were over 200 birds about his place back of the tile works. To-day not a bird is to be found. Every one has disappeared and these 2 brutes have again skipped."

Good substantial men, residents of Fox island, feel deeply indignant over the outrage and want active measures set on foot by the county authorities to bring the guilty parties to justice.

"I would not have had it happen for $5,000," said Mr. Alling, bitterly. "For 6 years I have been at work colonizing the island with these birds. They used to come into Captain Mearn's yard and feed with the chickens, they were so tame. All at once they disappeared. A party is under suspicion who has been known to threaten to kill any pheasants that might come into his enclosure. The birds are a positive benefit to an orchard, as they destroy aphis, beetles, bugs, caterpillers and a variety of insects."—Tacoma, Wash., Ledger.

TWO COONS IN ONE NIGHT.

THE SENTINEL.

Fifty weeks of the year I tramp the streets of a city within pistol shot of Boston. When my 2 weeks' vacation comes the Boston & Maine R. R. can not get me to Vermont quickly enough. Last fall I went home in October. Father having written me he had the best coon dog in the State, I looked for sport and was not disappointed.

One night I shall not soon forget. About 2 p.m. the whole family, father, mother, 2 brothers and their wives, visited an uncle, and after a most enjoyable afternoon the girls took the team home while father and brothers stopped and played 7-up until about 9, when we lighted the lantern and started for home.

About half way home a neighbor had a cornfield near his sugar orchard, which was tracked all over by coons, and we were sure of fun there.

We had barely got there when the old dog

gave tongue, and those who have heard the music of a hound on a still, clear night know the symphony orchestra isn't in it. The old dog must have caught her for we heard her squeal, but she got away and treed in a large elm that bent over the brook.

When we arrived the old dog looked up to a big limb that hung over the brook, as much as to say, "there she is," and there she was. My brother cut a club and father took the lantern. They got down on some stones in the brook under the limb, while I slipped a cartridge into a small rifle, and, getting the coon between the moon and myself, let go. Like Davey Crockett's coon she came down and then there was fun in the brook.

When she struck the water my brother struck at the coon, but hit the water, which flew up in father's face. He fell off the stone and such a mix up of man, boy, and coon you never saw.

A lucky blow on the back finally fixed things, when the dog, which had been coolly sitting on the bank, waded in, took the coon in his mouth, waded out and laid her on the bank. She was a female 2 years old. We went back to the corn and in half an hour the old dog started for the sugar orchard and by his song we knew he meant business. We came to him at the foot of an old maple and by the light of the lantern saw where a coon had gone up. As we came up the dog left and whined up another tree about 20 yards away. That meant another coon.

It was so dark in the woods we could not see to shoot, so father proposed to take the coon we had home, as he was too wet to stay, and we could camp until daylight and get the others. The sugar house was close and by clearing out the arch we made a fire. Then one of us took a 30 minute stand at the foot of one of the trees, the old dog taking care of the other, and we waited for daylight, when we shot a fat young coon out of each tree.

Keep on roasting the swine and you may be sure RECREATION will be next to the band in the magazine procession.

TO FEED THE POOR AT MARKET RATES.

It having been reported to me by several subscribers that 4 men had killed, in Glenn county, California, a total of 783 geese in 2 days, I wrote the persons named, asking if the report was true. The replies received follow:

In answer to your inquiry am pleased to say that information you received is true.

F. H. Bushnell, San Francisco, Cal.

The information you have regarding the number of geese killed by 3 friends and me is correct.

Chas. A. Palm, Sacramento, Cal.

The number of geese killed by myself and 3 friends in 2 days' shooting was 623. The total of 783 which you mention was inclusive of those killed by the professional hunters with whom we were shooting.

In case you might consider this too much slaughter, I explain that goose shooting here is chiefly confined to a period from March 1st to, at the outside, April 10th. During that time the birds visit the alkali plains of Glenn county in great numbers to fatten on the peppergrass preparatory to their Northern flight.

The shooting is done from pits, live and dead birds being stooled out and an expert caller occupying an adjoining pit to bring the birds within range. The shooting is not especially easy, the birds getting out of range quickly when the shooter rises.

The shoot mentioned was a phenomenal one, 2 men who shot after us getting only 51 birds in 2 days. None of the birds are wasted, all being shipped to San Francisco where they provide good food for the poorer classes at a low price.

A. D. Harrison, San Francisco, Cal.

You are different from most other California goose hogs I have heard from. The majority of them put up the plea that geese destroy the farmers' crops and that they (the butchers) are actuated purely by sympathy for these ranchmen in slaughtering geese. You and your friends have not even this puny excuse to palliate your crime. According to your own story, the geese were doing nothing worse than eating peppergrass; yet you and Bushnell, Palm, and Coleman go out and slaughter 623 in 2 days.

You do make the threadbare apology about the geese having been utilized for food for poor people, but I would be willing to bet a few dollars that you did not give the geese to these poor people; that you sold the birds and got every penny you could for them. Even if you had given the birds away that would be no adequate atonement for your crime. No matter what such brutes as you may say in defense of such slaughter, the real sportsmen of the country form their own estimate of your cussedness when they read your confession.—EDITOR.

ANOTHER GOOD INDIAN AGENT.

I took charge of this agency the first of July. I know nothing in regard to hunting parties leaving this reservation in the past. I assure you that none will leave in the future. The Cree Indians from Canada have done much damage between the Yellowstone and the Canadian line. They have nearly exterminated the antelope. These Indians were, in '96, rounded up by Government troops and taken back to Canada. They were back to the Yellow-

stone sooner than the troops. This reservation is an ideal game country and I am anxious to do all I can to protect the game. I am trying to impress on the Indians that in hunting they should never kill females. The bucks make good promises and I hope to have good results in this respect. I understand that last fall a small party of white hunters entered the South part of this reservation and killed over 100 deer in one week. I have also learned that one man who formerly lived in this same country, but who is now in the penitentiary. has 160 bighorn heads that he intends to mount. I will be glad to have suggestions from you and I assure you I am in harmony with your organization. I should like to become a member of the L. A. S. if possible.

S. G. Reynolds, Crow Agency, Mont.

ANSWER.

It is not only possible but extremely desirable for all concerned that you should become a member of the L. A. S. A number of Indian agents are already members of the League and have pledged themselves to co-operate with it, as you have done. No class of men in the country could possibly be of greater service than you gentlemen can be, and we need your help. The present generation has seen the buffalo, the noblest of all American wild animals, practically swept out of existence. Also the wild pigeon. The antelope, the elk, the mountain sheep, the goat, the prairie chicken, the wild turkey, the wood duck and the woodcock will follow within a few years unless every possible effort on the part of intelligent men is put forth to save these creatures. The destruction of the buffalo and the wild pigeon is one of the crimes of the 19th century, and I trust no more like it may be charged against the people of the 20th century. If the friends of game protection everywhere would all join the League and co-operate vigorously with it in its work, all of the species last named might be saved indefinitely; but it is only by the rigid enforcement of wholesome game laws everywhere that such a result can be achieved.—EDITOR.

J. E. BARTON DISMISSED.

Congratulations are in order over the final outcome of the J. E. Barton case. He was tried last year in Justice H. C. Lillie's court, in Visalia, for illegally having venison in his possession in the close season. Mr. Barton was, at the time, foreman of a crew of men who were fencing and improving the General Grant Park, situated in Tulare and Fresno counties. On or about July 20, 1901, one of Barton's crew killed a deer and carried it into the main camp. It was eaten by the crew and Mr. Barton took occasion at the table to say he would "fire any man in the crew that peached." F. A. Bullard and I, both rangers, heard of the case. After due investigation we caused warrants of arrest to be issued for both Mr. James Bolton and Barton, charging the first with illegally killing the deer and the latter with illegally having the meat in his possession, as he was foreman with power to employ and discharge the men at his pleasure. Mr. Bolton, on hearing of the warrant, went to the justice's office, and pleaded guilty, paying a fine of $25, but Barton stood trial and the justice discharged him. We were not satisfied with that action and appealed to the President of the L. A. S., sending him a copy of the evidence taken by the court reporter. This cost us $25 out of our own salaries. In due time, notice was also given to the California Fish Commission of the action taken. This season a new superintendent was sent out to guard both the Sequoia National and the General Grant parks, and Mr. Barton was again employed in his former capacity as foreman. Frequently we heard of his bragging about being "in with the push" and that no "damned spy" could work in his camp, nor any man that wore a game warden's badge. In the meantime the L. A. S. had been at work and all at once Mr. J. E. Barton, of the push, was interviewed by Captain Frank A. Barton, the park superintendent, with the result that Mr. "Push" Barton was summarily dismissed and discharged from all park work in California. No greater or better object lesson was ever shown in this section. Now many men are respecting the law; because the L. A. S., the Secretary of the Interior, the park superintendent, and some rangers who are not afraid show that the law must be respected. Hurrah for the L. A. S. S. L. N. Ellis, Visalia, Cal.

MY LAST CHRISTMAS AT HOME.

For years our families had gathered at the old home for each returning Christmas, and all looked forward to each new anniversary with delightful anticipations. At the last Christmas meeting an incident occurred which seemed to me mysterious, and I present it for the fraternity's consideration.

I was recently returned, honorably discharged, from the West Indies, where my regiment had served through the Spanish-American war. I have a hobby. I love to be in the woods with a gun; not necessarily to shoot, but to be where I can see nature unchanged. Accordingly, I proposed to my elder brother a trip to Mount Dumpling for a ruffed grouse. He readily acceded, and together we sallied forth to the mountain, distant ½ mile.

Soon after we reached our campaigning ground we flushed a grouse, which fluttered off among some dense hemlocks. Four times we flushed that same bird. The third time it flew directly toward me, knocking off my hat and startling me so that I did not recover in time to shoot. My brother lost his chance from laughing at me. The fourth time we raised the game I fired, but, beyond a few feathers, had no trophy to show in proof of my skill, though we sought earnestly and long. Reluctantly we gave it up at last and went home.

It was late when we retired that night, but as the next day was Christmas we all rose early, brother first. What was his surprise to find in a sheltered nook of the piazza a wounded grouse, which Zip, the dog, instantly caught and brought to him. It had received a charge of shot in the leg.

Had it not been wounded we should have liberated it after feeding it; but it seemed the part of mercy to kill it.

Was that bird the one I had shot at? If so, why did it come to the house? Was it to verify my claim to a hit?

That was my last Christmas in the dear old home. Its successors have been passed under these far tropic skies. Instead of the pine of my native land I see the fronded palm; and between me and the loved ones rolls the mightiest of oceans. I know, however, that they wait and watch for me; that my place is held for me, and I hope to meet them once more when I shall have finished my course here.

James W. B. Mannion, Manila, P. I.

DEPRECATES ALL KILLING.

Thorold, Ont.

Editor RECREATION:

God bless you for your true sportsmanship! As a boy I was passionately fond of firearms, and managed by self-denial to advance from a Flobert rifle to the proud possession of a 38-40 repeater. As there was no large game here I was restricted to target shooting until I traded the rifle for a shot gun. That opened up a new field of pleasure. The largest bag I ever made was 2 ducks in one day, but I was prouder of those than a St. Clair Flats swell is over his boat load. You can imagine the anger that filled my heart when I read in the A. D. G. H. how 2 men killed 800 ducks in 2 days.

As the years passed I became interested in other things, and kept up my shooting more for health than anything else. At last I received a lesson that cost the life of but one sparrow, yet sickened me forever of slaying birds and animals. I was with a lad who had a Stevens rifle and I watched him as he aimed and fired at a sparrow in the old barn we were in at the time. The little thing dropped at my feet and gasped out its life on the ground; blood spurted from its beak at every breath, and my heart turned sick at the sight. How many innocent lives had I ended just as recklessly. I sold my gun, and from that day to this I have not killed a bird or an animal. I wish I could make a few game hogs feel what I felt as I watched that sparrow die—the utter, needless cruelty of the whole business.

There is no need for a temperate man to reform, and if sportsmen had always pursued your principles there would be no appreciable decrease in the number of feathered inhabitants of the earth.

Keep on in your good work. Every reformer offends people once in a while, and if a man is afraid to live up to his belief he is not worthy to hold any.

Your photo competitions are simply grand. A perfectly natural, well balanced man should enjoy seeing a creature in its health and beauty more than viewing its mangled corpse at his feet.

I hope the presses that turn out RECREATION may be rushed to their fullest capacity.

A Reformed Sportsman, Thorold, Ont.

OFFERS TO BREAK THE LAW.

Some time ago a complaint came to me from Wyoming to the effect that one S. L. Adams, of Jackson's Hole, was killing game in close season and encouraging others to do so. In order to get at the truth regarding this man's actions, I got a League member to write him a decoy letter, which ran thus:

Dear Sir—I have seen your name in a list of guides. Am thinking of taking a fishing and mountain-climbing trip in the Teton mountains this summer. Could you go with me? If so, what would you charge a day for your own services, for saddle horses, pack horses, etc.? My time would be limited to July and August. Do you think it would be safe to kill an elk or a deer during that time? Could you suggest any way in which I could get the heads out of the State safely, without danger of being caught?

Adams walked into the trap with both feet. Here is his answer:

Dear Sir—I could no doubt give you as good service as anyone around here. I have been a deputy State game warden the past 3 years, but my commission ran out the 1st of last February, as there was a change in State Game Warden, and I do not expect an appointment this year. I know the law and how it can be evaded. If you come to me I can fix the matter you mention all right, so there will be no danger. I will not put my plan in writing. If you come will explain to you and guar-

antee no trouble. I could go with you from the 1st of July to the 20th of August, and possibly longer.

Stephen L. Adams,
Jackson, Wyom.

Adams was a game warden 3 years, and now that he is out of a job he turns around and offers to aid others in violating the laws he was paid to enforce. His neighbors should give him about 24 hours in which to get out of the State.—EDITOR.

WERE THEY JACKING?

In the newspaper accounts of the killing of Major Smylie by Judge Storrs, at Blue Mountain lake last summer, I saw no allusion to the apparently undeniable fact that those gentlemen, one a major in the United States army and the other a judge of the United States courts, were breaking the laws of this State and thus the laws of the United States, which they above all others were pledged to observe. There can be no doubt, in view of the facts brought out at the coroner's inquest, that the whole party were engaged in floating, or jacking, for deer. If men holding positions of trust and horor under the government of the country can not be relied on to observe the laws which they have helped to make, can it be wondered at that a class of men such as the natives of the North woods, lawless by nature and ignorant as many of them are, do not observe them? Undoubtedly 75 per cent. of the game taken there during a year is taken illegally. Hundreds of deer are killed every year out of season, while the majority of those taken in season are shot under a jack; yet I can not recall a single case in which an offender was brought to justice last year. Can not something be done to awaken the people of this State to the fact that we have too few game wardens and that the few we have are apparently not doing their duty?

C. B. W., Utica, N. Y.

This communication relates to the killing of Major Charles A. Smylie, of New York City, by Judge C. B. Storrs, of New Jersey. While the sympathies of all good men go out to Major Smylie's family, if he had one, no one can fail to realize that the Major got what he deserved. It is to be hoped the New York State Fish and Game Commission will get a requisition for Judge Storrs, bring him to this State and have him punished as he deserves.—EDITOR.

IF YOU GO BE CAREFUL.

Perhaps some of your readers would like to know where there is good caribou hunting. Alaska is the place, and Pavloff Coal Harbor, about 40 miles from Hugo island, is the particular locality. Am just returning from a prospecting trip there. Yesterday and the day before I saw several bands of caribou feeding, all close to the beach and within a mile or 2 of this stream's regular run. Any sportsman would be sure of getting what caribou he might wish, also brown bear. Take steamer Excelsior from Seattle to Juneau, then steamer Newport from Juneau to Pavloff Coal Harbor, where Captain Moore will land anyone. Sportsmen should bring a small stove to burn coal, as there is no wood in the country, but plenty of coal.

Paul Buckley, on board Newport.

Sportsmen who may be prompted to visit the Alaskan peninsula to hunt caribou there should remember that the Lacey bill for the protection of game in Alaska has passed both houses of Congress, has been signed by the President and is now a law. Under the provisions of this act, no man is allowed to kill more than 4 caribou, 2 moose, 2 walrus, sea lions, sheep, goats or large brown bears, or more than 8 deer, in any one year. No females or yearlings of moose, caribou, deer or sheep may be killed at any time. The sale and shipment of skins or heads of big game animals is prohibited at all times, under heavy penalties, and it is the duty of all marshals and deputy marshals, collectors, and deputy collectors of customs in Alaska, and all officers of revenue cutters, to assist in the enforcement of this law. Alaska is a big country, but these various officers reach all habitable portions of it, and it will not be safe hereafter for any man to attempt to violate any provision of the new game law.—EDITOR.

A CALIFORNIAN HERD.

There was a duck hunt last Tuesday that will be remembered for some time by the members of the Salt River and Island gun clubs. The day was fine and in some places ducks were plentiful. E. Larsen, of the Island, lead with 37 ducks. H. Bouchard was second with 36. In the Salt River team Bert Matthews had 29; Wm. Clark 27. The Island had 18 men and Salt River 17, and the official count was Salt River 293, Island 257. As this was the first time these 2 clubs met in a friendly shoot, and as there has been some boasting on both sides, Salt river is highly elated over the victory. The following score was made: Salt River—Bert Matthews 29, C. H. Matthews 12, T. Boyd 22, W. Boyd, 22, X. L. Boyd 21, G. Haywood 19, Bert Leighton 23, D. Reas 12, G. Clark, 16, W. Clark 27, Floyd Fuller 17, B. Haywood 16, C. Peyton 13, W. Damon 17, A. Morrison 4, E. Haywood 12, H. Briggs, 13. Island—R. H. Flowers 19, W. Bouchard 16, H. Dillon 9, E. Larsen 37, H. Bouchard 36, E. West 10, A. Rasmussen 6, L. Hicks 6, T. Rasmussen 4, A. Halley

2, G. Hansen 4, B. Goble 32, J. Goble 32, J. Elliott 3, E. Rasmussen 9, R. Neil 14, J. Niebur 27, C Andersen 3—Ferndale, Cal., paper.

Wm. Clark admits, in answer to my inquiry, that he killed 27 ducks and adds that he has done better on other occasions in less time. Doubtless the other scores are correct as given. To help these rooters remember their hunt I give the record more publicity than it could have in the columns of a country paper. Several hundred thousand good citizens will learn by it that there is a drove of 35 duck hogs at Ferndale, Cal., tagged as per above list.—EDITOR.

AMONG THE ORANGES.

Brother Al and I left home October 17th, and came here to fish, hunt, read, write, rest, loaf and recuperate.

We arrived at Bartow, our railroad terminus, Thursday evening. From Bartow to this city is 26 miles Southeast. By trolley the distance can be covered in about 3 hours; by railroad in less than an hour. As yet, neither are contemplated, therefore, we came in a wagon, drawn by one horse. and covered the distance in 7 hours and 49 minutes. We lost 11 minutes feeding man and beast, *en route*. The road is through pine woods most of the way, and sandy all the way. To induce the horse to make better time, I walked part of the distance and not wishing to mortify the beast, sat down after walking a mile or 2 until he caught up. About 4.30 p. m., we came to anchor and were welcomed by Mr. and Mrs. S. W. Carson, with whom we intend to make a protracted stay, provided we suit them and our money holds out.

Am writing this in my library, a tent pitched in the front yard. Across the road is the frost-proof orange grove, of over 100 trees, 40 of them in full bearing, as are also 30 grape fruit, several guava and kumquab trees. This city has a population of 16 men, women and children, 7 dogs, 8 cows and 20 chickens. There are 6 lakes within 2 miles of my library. They are the most beautiful lakes I ever saw; not large, but just large enough to afford all the good fishing for black bass that anyone would or could desire.

S. H. S., Lakemont, Fla.

FULLERTON'S GOOD WORK.

We are going to prosecute Dr. Hoyt, of St. Cloud; F. W. Randall, Superintendent St. Cloud Reformatory, St. Cloud; Judge Steele, Judge Simpson and Dr. Simpson, of Minneapolis, for shooting on the White Earth reservation before the lawful season; namely, September 1st.

We arrested Walter H. and S. P. Pollman, of St. Louis, Mo., non-residents, who came to the State and tried to shoot without a license. The next time they come to Minnesota they will take out non-resident licenses. Also William Campbell, George Jones, and James Brown, all of Oshkosh, Wis., were induced to part with the necessary fee of $25 each.

The great trouble we have to contend with in Minnesota, is men who call themselves sportsmen who sneak in here without conforming to our laws. We have let them off lightly so far, but in the future we will not only compel them to take out licenses, but will confiscate everything they have. Perhaps after that they will be good.

I am glad to say for the benefit of the readers of RECREATION that the Lacey law is doing a world of good in regard to shipping. There are some men who go to the Dakotas and this State and try to sneak trunks full of game home with them. They will deeply regret the trip when Uncle Sam gets hold of them. We are furnishing information now to Dr. Palmer, who is doing such good work as the Assistant Chief of the Biological Survey, and he is helping us in cases where the game was shipped out of Minnesota.

Sam F. Fullerton, St. Paul, Minn.

PUT A BOUNTY ON FOXES.

Game in Massachusetts has never before been so scarce as at present. There are 2 reasons for this; too many hunters and too many foxes.

It does but little good to appeal to hunters through sportsmen's papers or magazines. The law must say when they can hunt and how many birds each man can kill. In this State shooting is permitted from September 15 to January 1. For 3½ months the coverts and swamps are hunted until it is a wonder there is a grouse or woodcock left. Two months would be a long enough open season under present conditions. The new Sunday law has helped some. There is but little shooting on Sundays now compared with 2 years ago.

No man can kill RECREATION'S limit of 10 birds in this county. If a good shot gets 5 birds in a day he is doing well. Five years ago grouse were sold in Boston for 70 to 80 cents a pair. To-day they bring $1.50 to $1.75.

Foxes do almost as much harm as hunters. I have known whole flocks of game to be destroyed by foxes. Foxes are thick here. On every snow one can see where they have followed grouse and rabbit tracks. If the State would pay a bounty of 50 cents for foxes the farmers would dig them out in the spring. I know one man who got 87 foxes, 2 years ago, with one fox terrier. Last year grouse and

rabbits were thicker in that part of the county than in any other. With a shorter open season and a bounty on foxes, our game would increase.

Dr. S. B. Keith, Palmer, Mass.

GAME NOTES.

John F. Pletsch, of the firm of Pletsch & Sutton, who, together with the other members of the firm, was arrested by deputy game warden L. C. Graham on the charge of having for sale quails which had been killed out of season, pleaded guilty before Justice Lowry, and was fined $25 and costs.

The other members of the firm, L. K. and G. L. Sutton, were dismissed on payment of the costs, as the evidence disclosed that they had no knowledge of the purchase or possession of the birds.

These were the first cases which Deputy Graham has prosecuted for the infraction of the game laws, and he feels much elated over his success in securing a conviction. Several other persons whom he had arrested for violation of the fish laws were fined $25 and costs by Justice Helwagen. Mr. Graham has received letters from a number of hunting and fishing clubs heartily commending his course.—Columbus, O., paper.

The game business is really not what it used to be. I look for many retirements from that field of endeavor within a few years.—EDITOR.

I had planned a little surprise for my Camp Fire friends in the way of some alligator steak, but since my arrival the weather has been so cool and the rivers so high I have not seen a 'gator to shoot at. Fishing is poor on account of the weather, so there is not much to do. A flock of quails run around the house almost every day and they are extremely interesting to watch. There are a good many ducks on the bay, so we have all we want to eat, but we do not shoot any more than we can use. The orange groves are looking fine, and the backward season has been a good thing for them, preventing the new growth from starting and being frozen. Next year, if we get no freeze, this section should send a large crop of oranges to market. H. H. Todd, Roseland, Fla.

Four years ago you roasted me to a turn. Since then I haven't deserved a roast. I haven't the slightest sign of a bristle; not one; and to show my appreciation of the good work your magazine is doing for game protection I hand you herewith an article which I hope you may be able to use in RECREATION.

John M. Fairfield, Denver, Colo.

The story will be printed in a future issue.—EDITOR.

In district court Henry Greenwood, a farmer living in Sturbridge, was found guilty and paid his fine of $100 for shooting the deer which was shot at Leadmine and died after being run down by dogs. Other parties were arrested, charged with being accomplices, but as no evidence was shown to implicate them, they were discharged.—Southbridge, Mass., paper.

Well, as long as the chief culprit got his dose, we will not worry about his followers.—EDITOR.

Turkeys are fairly plenty here. Grouse, quails, woodcocks and squirrels are scarce. We have a few deer and bear. The law should either prohibit the killing of does or set the limit at one deer per man. Game Warden Bernier, of Harrisburg, successfully prosecuted several violators of the deer law last winter. Here we were less fortunate, being unable to secure positive evidence.

J. J. Brennan, M. D., Oval, Pa.

We have more quails here than are found in any other section on the Eastern shore of Virginia. When we had that hard freeze 4 years ago I fed the quails in this vicinity ,and last February I did the same. I am sure we have over 500 coveys within 5 miles of town.

W. T. Gladding, New Church, Vt.

Last year Harry Rash, a rancher on Blacktail Deer creek, captured 2 calf antelopes, a male and a female. He keeps them enclosed in a wire fence yard. When I last saw them, which was in August, their diet was chiefly willow leaves. Rash has refused $50 apiece for the animals.

Carl E. Price, Dillon, Mont.

Game and fish are abundant here, but hogs are, too, and kill in and out of season, unmercifully. Fish are nightly dynamited. We have pot hunters galore that do not think they have had a good day's sport unless they bag at least 50 quails a day apiece.

D. Bosley Wapanucka, Ind. Ter.

Should any of the readers of RECREATION wish to obtain information regarding hunting and fishing in the St. Clair river country, I shall be glad to answer any questions.

W. A. Miller, Detroit, Michigan.

Already many thousands of people are wondering what they are going to get for Christmas presents. Other thousands are wondering what they are going to give their friends. If you wish to make a present to a man or boy who is interested in shooting, fishing, amateur photography, or nature study, give him a year's subscription to RECREATION. Nothing you can possibly buy for $1 would give him so much pleasure as 12 issues of this magazine. Come early and avoid the rush.

FISH AND FISHING.

LETTERS FROM A FISH HOG.

Petoskey, Mich., June 30.

Dear John—I've been over on Walloon lake most of the time for the last 6 weeks. Greatest bass fishing I've had for a long time. Not so many bass in the lake, but I struck the spawning season. Water's so clear you can see 'em right on the beds and they'll take anything you throw at 'em. Sometimes I got 15 or 20 in a day, and I shipped several boxes down to my friends along the G. R. and I. every week. Next year I want you to come up with me about the middle of May, and we'll get every bass in the lake. Folks around here will not squeal, so you needn't be afraid.

Yours truly, J. Dixon.

Boyne Falls, Mich., July 10.

Dear John—You ask me about the trout fishing in the Boyne. It's a fair stream, but you are too late in the season. I slipped in here a week before the regular season opened, struck the river a few miles down, and fished it to within 2 or 3 miles of Boyne. Got the biggest haul you ever saw. Of course I didn't dare take 'em into Boyne, so I hired an old farmer to box 'em for me and haul me over to Clarion, and I got out of the State with 'em in short order. I'll give you a tip next spring and we'll try it together.

Sincerely yours, J. D.

Allenville, Mich., July 25.

Dear Johnny—Been having the greatest sport with pike and muskalonge you ever saw. Brevoort lake is full of pike and they are tame as pigs. Come right up to the side of the boat and take your spoon under your very eyes. It's no trick at all to get a dozen or 2 on one trip, and big fellows, too. I stayed 10 days and went out every day. We just had to bury a lot of 'em in the ground to keep 'em from stinking us off the lake, for we couldn't eat 1-5 of what we caught. I didn't bother with any reel, for you don't have to cast any distance to get 'em. I just took a big cane pole and a heavy line, and when one got on I yanked him up by the boat and knocked him in the head with a club. If he jerked off I flung out and hooked another. It's a regular butcher shop. You must come up with me next year and we'll have grand fun.

Yours as ever, J. D.

Brevoort, Mich., August 8.

Dear John—I was going South after writing you from Allenville, but I got on to something that I couldn't let slip. There's a little lake up in the woods from here where the deer are almost as thick as blackberries, and if you stand in right with some of the natives you can kill as many deer as you please. I got a guide and went over one night with a jack light. We got 2 deer in less than 2 hours. One of 'em was a good sized buck and the other a doe. We got what meat we wanted and hid the rest. The guide will keep the hides safe for me and I guess I'll get 'em out this fall without any danger. All I want now is a good haul of trout from some of the streams around here and I'm going home.

Yours, etc., J. D.

St. Ignace, Mich., August 10.

Dear John—I found my trout all right. There was no one around to bother himself as to how I caught them. Sunday last I got a lumberman to go out with me and we netted 2 big holes. I am shipping you a box to-day with 2 dozen big ones in it. The law will not allow one to ship them out of the State, so I can't send them directly to Toledo. I will send them to Jones, at Alexis, which is over the Michigan border, and you can drive out and get them. Yours sincerely, J. Dixon.

DISGRACE THEIR PROFESSION.

The following item appeared in the Inland Ocean, of West Superior, Wisconsin:

Professors E. W. Walker and C. A. Donnelly, of the Normal school, returned from Pratt, Wis., where they have been enjoying a few days' fishing. They caught 410 trout during their trip and report a pleasant time.

I wrote these gentlemen for confirmation of the report and received the following reply

Yes, it is true. Professor C. A. Donnelly and I caught 410 trout recently. I do not feel that the accomplishment is unusual, however, as we spent 4 days in catching them. Nor were they large. The largest measured 13 inches in length. I had no scales for weighing. The wonder is not that we caught 410, but that we did not catch twice that number. Expert anglers would have done so.

E. W. Walker, West Superior, Wis.

So you averaged 50 trout a day and boast of it! You say expert anglers would have caught twice the number you did. No man who would take even as many as you and your friend did is entitled to the name of angler. That is synonymous with gentleman, and you have by your conduct ruled yourselves out of that class. So does any man who slaughters fish as you did and as you say expert anglers would

have done. Suppose 100 men should fish the stream you speak of, in the course of a season, each staying 2 days and each taking 50 trout a day. Such a case is scarcely possible, but assuming that it might be done, what would be left for others who might see fit to fish there in future? Can you not easily realize that the streams would be completely cleaned out? Does a farmer kill all his chickens, ducks, turkeys, sheep, hogs or cattle in one year, or does he save a few to propagate for future years? What would be thought of a man who, simply because he had a chance to sell or to give away poultry to his friends, would go into his barnyard and kill every fowl he found there? Would you not consider him a fool? Most assuredly; but in that case, he would be dealing with his own property, and would not be committing a crime against his neighbors. Men who kill all the fish in a stream, or who do their best to accomplish that, are not only fools, but criminals in the eyes of their neighbors, and should be dealt with accordingly.—EDITOR.

THE MONTANA KIND.

I hand you herewith a clipping from our daily paper, and hope you will make good use of it. The persons mentioned have been heard from before, and, in consequence, our fish and game is rapidly disappearing. These fellows think nothing of catching 100 fish a day.

L. A. S., Missoula, Mont.

The clipping follows:

The Goober Club, made up of J. A. Hartley, Ned Dorman, H. Blumberg and George Steinbrenner returned yesterday afternoon from Rock creek. They went out to the creek last Thursday afternoon and brought back 362 trout. The reporter is from Missouri, but the story is absolutely truthful.

I wrote the persons mentioned, and received the following replies:

The information you received is correct, as far as number is concerned, but the time was 2 days instead of one.

Geo. L. Steinbrenner, Missoula, Mont.

While the number of fish caught by our party was 362, the time was 2 days instead of one, which would make an average catch of 45 fish a day. These were brook trout, ranging in size from 7 to 14 inches long. In this part of the State we consider this a medium catch, as the streams abound with these trout. While not a member of the L. A. S., I read its organ, RECREATION, and approve the manner in which it strives to preserve fish and game.

E. S. Dorman, Missoula, Mont.

The information you received is correct. My friends succeeded in catching 360 and I caught the remaining 2.

Harry Blumberg, Missoula, Mont.

There seems to be one decent man in the crowd. Mr. Dorman says he approves of the manner in which the League strives to preserve the fish and game. So far, so good; but if you approve of the League's efforts, why not participate in them instead of fishing from daylight to dark in order to try to clean out a stream? Why not stop when you get a decent basket of fish. Why not induce your companions to do likewise? You should all be ashamed of yourselves, even the man who claims to have caught only 2 fish. That story of his will bear a liberal quantity of salt.—EDITOR.

MICHIGAN SHOULD PASS LIMIT LAW.

P. L. Lamoria and Menzo Gates returned from a day's fishing near Alexander with a big lunch basket full of handsome brook trout. The crowd applauded the catch and Paul and Menzo smiled as they walked home lugging the basket and a heavily loaded wash boiler. The boiler was filled with trout, also, and they did not take the trouble to count them but they say their day's catch amounted to about 2 bushels of speckled jewels.—Sault Ste. Marie (Mich.) News Record.

On inquiry as to the truth of this report I received the following reply:

That which you have heard in regard to myself and a friend catching 2 bushels of speckled trout is the truth. We started to fish at 6 in the morning and at 1:30 p.m. we were on our way home. Paul Lemoria is the name of the friend who accompanied me on that trip. We made our catch on Pine river ,Chippewa county.

M. Gates, Sault Ste. Marie, Mich.

You evidently used either dynamite or a net to catch such a large number of trout in 7 hours. Of course if you had used hooks and lines you would have yanked the fish out as fast as possible. Such degraded brutes as you always do that. They care nothing for the sport of fishing. They simply fish for count and for the frying pan. Still I do not believe that in any stream in the country trout are plentiful enough to enable 2 razorbacks to take a bushel of trout in one day. It is to be hoped Michigan and all other States will soon enact laws limiting the number and the aggregate weight of a day's catch of trout or other game fishes; and a jail penalty should be provided for violators. This is the only way to curb the brutal instincts of such swine as you.—EDITOR.

MIGHT LIVE IN WARM WATER.

Will you kindly advise what species of fish would be best adapted to water of a temperature of 80 degrees? We have an artificial lake covering 7 acres, with 5 to 18 feet of water, fed by natural springs;

but owing to exhaust water from steam pumps the lake water is kept at a high temperature in summer and seldom freezes in winter. J. M. Sloan, Crown, Pa.

ANSWER.

It is doubtful if you can find a fish of much value that can live in water whose temperature is 80 degrees continuously. Not only is the water in itself too warm, but the fish are enervated and rendered liable to attack by various diseases. The common bullhead would perhaps do as well as any species you might select. It would reach a weight of half a pound or more in such a pond and is a good food fish. If you should not wish to try bullheads the next best species is the bluegill (*Lepomis pallidus*). It reaches half a pound, is an excellent food fish, thrives well in small ponds and might do fairly well in water of that temperature. Other species that might be tried are the rock bass (*Amblophlites rupestris*) and the large mouth black bass. Any of these species can probably be obtained in the sluggish streams or ponds in your neighborhood.—EDITOR.

CAUGHT 600 TROUT IN 3 DAYS.

Mr. and Mrs. A. W. Ellis, Mr. and Mrs. William Kitchen, Miss Amy Haines and Harley Wood returned last Friday from a fishing trip on Trout creek. The last named was appointed press agent because of his undoubted veracity, and from him were secured the following facts—also a dozen trout, as corroborative evidence. The party fished 3 days and caught 600 fish, about half of which were also secured the following facts—a dozen measuring more than 6 inches. Many not more than 5 inches long were filled with eggs.—Sumpter (Ore.) Miner.

Coquina, how do you like that slaughter of minnows? The above party averaged only 100 fish each, so if they were out a week or 2 the number caught was not excessive. It is the size of the fish taken that every sportsman will protest against. J. B. N., Tacoma, Wash.

I do not like it at all. In the first place, it is probably a newspaper fake as to the number of fish taken, but we may safely conclude that there is no exaggeration as to the size of the fish, for the people who took them would have been glad to say the smallest weighed a pound if they had been in a position to do so. I assume Oregon has a 6 inch trout law. If not, she should enact one at an early date. If there be such a law in effect, then these people should be punished as they deserve.—EDITOR.

THE LARGE MOUTH BLACK BASS.

In the several bays and ponds near this city there are numerous large mouth bass which nearly all anglers persist in calling mud bass. They look to me like Oswegos, and I am anxious to know if there is a third variety of bass of similar characteristics.

L. B. Hawley, M. D., Rochester, N. Y.

ANSWER.

The fish to which you refer and which many of your anglers call mud bass is undoubtedly the large mouth black bass, or Oswego bass. The best common name for this species is the large mouth black bass, but it is known in different parts of the country by many different names, as for instance, Oswego bass in New York State, mud bass in various places in the North, straw bass in Northern Indiana and elsewhere, chub and welshman in Virginia and North Carolina, and trout and green trout throughout the South. There is only one other species of black bass, namely, the small mouth black bass.

For full descriptions of these and all other game fishes of this country see "American Game Fishes," edited by G. O. Shields.—B. W. E.

IT WAS A GERMAN CARP.

A subscriber recently sent me a clipping from a weekly paper of Monticello, N. Y., which stated that Mr. Crossman, of Cochocton, caught, in the Delaware river, a wall-eyed pike that weighed 17¼ pounds. I wrote Mr. Crossman as follows:

I am informed you recently caught a wall-eyed pike which weighed 17¼ pounds. Will you kindly advise me if this is true. It sounds like a newspaper yarn, and I should like to know if the fish really weighed that much.

Mr. Crossman replied:

The fish was a German carp weighing 17¼ pounds, taken from the Delaware. I have caught wall-eyed pike weighing 12 pounds and am assured that pike from 17 to 20 pounds in weight are in this vicinity. A. Crossman, Damascus, Pa.

THE GRUNT OF A FISH HOG.

Michael Karpen, of Chicago, a member of the firm of S. Karpen & Bro., manufacturers of furniture, went fishing. On his return he had himself photographed with his catch and sent the picture to a trade journal. Unless there was something the matter with the camera, Mike is not exactly pretty; in fact, he looks the fish hog he proclaims himself to be. Lest there should be any doubt as to his status, he sent with the photo a lovely poem of which the following is a sample:

"Mike Karpen once a-fishing went,
To catch fish his mind was bent.
A great fisher before the Lord is Mike:
He catches whales, carps and pike.
Here you see him, to the right he stands
With a big string of fish just pulled on land."

NIBBLES.

While walking along the shore of Calumet lake one day I saw 2 well dressed men come in off the lake from fishing in a boat. As they neared the landing some friends called to them, "What luck did you have to-day?" The fishermen answered, "Fine! Could not be better! We caught about 150 sunfish." I saw the fish lying in the boat. The 2 men got out, locked the boat and started away, leaving the fish lying in the boat, in the hot sun, to dry and spoil. Another man said to the fishermen, "Are you not going to take the fish along?" "No," they said, "we just wanted the fun of catching them." I do not know the names of those fishermen, but they ought to be locked up about 2 years apiece, to learn what true sport is.

Herman C. Beahls, Roseland, Ill.

What is the best food for shiners when they are kept in confinement for winter fishing? Will they live in close confinement?

Frank P. Matteson, Davisville, R. I.

ANSWER.

Shiners kept in confinement for winter fishing are not apt to eat or to require much food, especially if kept in cold water. When earth worms can be obtained they form the best food for minnows. Bread crumbs and hominy, soft and chopped sufficiently fine, are excellent and will be taken readily by most minnows when at all hungry. Small bits of meat are also excellent.

In feeding fish in a live-box care must be taken not to put in at any one time more food than the fish are able to clean up; else the box becomes foul and unhealthful.—EDITOR.

Byron and Foster Burch and Arthur Schoppe caught over 500 trout one day this week.

When my attention was called to above clipping from a New Hampshire paper I wrote to the men named, asking if the report was true. The following answer was made:

The report that 2 friends and I caught over 500 trout in one day is true. We began fishing at 8 a. m. and quit at 3. We had the nicest mess of fish that has been caught here this year.

Byron R. Burch, Canaan, Vt.

I take it for granted your bristles show clear through your clothes.—EDITOR.

A subscriber in Orion, Mich., sends me a clipping from a Detroit newspaper containing a string of fish stories. The writer of the letter says, "The fellow's story would have been all right if he had left out the picture that shows him to be a genuine fish hog."

The picture referred to shows this bristleback standing up behind a string of some 50 odd trout, and if ever a man showed villainy in his face, the one in this picture does. If Michigan lawmakers do not soon pass a law to restrain such butchers as this one, there will be no fish left in their streams.—EDITOR.

Large trout are sometimes taken on small flies. Last summer I was fishing in the upper waters of the Beaverkill at twilight with 2 friends, when I took a 5 pound brown trout, measuring 23½ inches, on a royal coachman, No. 10 hook. It took me 25 minutes to bring him to net. I used a 5 ounce split bamboo rod and a fine leader, tied with single and water knots. I am told this is the largest trout ever taken with a fly on the Beaverkill.

Willard Spenser, DeBruce, N. Y.

This State has planted a great number of German carp in many of our inland waters. These fish destroy the wild celery and rice on which game birds thrive; the result is that duck shooting is here a thing of the past. Prevent, if you can, other States from making such a mistake and planting a pest which can never be exterminated.

G. E. Schulz, Milwaukee, Wis.

You will see in the lower left corner of the picture on page 442 the line "A Day's Sport on the Yukon." The photographer should have said a day's slaughter and he should have branded the letters G. H. on each man's mug before making the prints. The Alaska game bill was not passed soon enough. These brutes should have been locked up in a military prison 30 days as a proper retribution for their dastardly work.

Are you beginning to think what you can give your friends for Christmas presents? What could be more desirable than a yearly subscription to RECREATION? It is one of the most practicable and useful presents you could possibly give a man or boy who is interested in nature study, fishing, hunting, or amateur photography.

All boys instinctively love the woods. RECREATION teaches them to love and to study the birds and the animals to be found there. If you would have your son, your brother, your husband, or your sweetheart interested in nature, let him read RECREATION. It costs only $1 a year and would make him happy twelve times a year.

GUNS AND AMMUNITION.

Anybody can shoot all day, but a gentleman will quit when he gets enough.

SERMON ON THE MERLIN.

C. B. MAXWELL.

Verily I say unto ye, Jews and Gentiles, there was a rich man named Bellard that said to himself, "I will make a gun, yea, verily, I will make many guns. I will make good guns, so that the shepherd may have means to protect his flocks, the pioneer may have means to secure his living, to protect the widows, the orphans, from the savages and the wild beasts. I will make guns to shoot once, and set an example in moderation that it is not manly to slaughter for the sake of seeing blood run. Yea, verily, I will make my name great among men of many nations."

Then, after much prayer and fasting, he was rewarded with great success, and his name was blessed, and his fame was spread over the land, and his guns, for their many good qualities, were much sought after from far and near.

But in his own good time the Lord took Bellard to dwell with His elect, and said, "Well done, thou good and faithful servant."

Then again it came to pass that an ungodly man, named Merlin, coveted the honor and the riches of the good servant Bellard, and said unto himself, "Behold, I will build up a great name for myself. I will be honored of men. I will improve on the handiwork of the misguided Bellard." And it came to pass that this ungodly man did go to the widow and the orphans and did trade them out of their inheritance. Then went he to the synagogue and stood up to be admired of men and posed as a wise man, and did pray both long and loud, with much self-praise. He meditated both long and thoughtfully and said, "I will make a gun that will shoot many times, that the veriest game hog may exterminate all the creatures that creep and walk on the earth; and I will make my domain a howling wilderness. I will have the advantage of my predecessor's reputation and with my vast knowledge will make a gun that will exterminate whole armies at one discharge; yea, verily."

Then it came to pass that the ungodly Merlin sang the praise of his guns from the street corners, from the house tops, from the hill tops, with much loudness of mouth, and many were deceived and followed the false prophet.

Then it came to pass that the wise men of the nation said, "Wherefore this man maketh much noise and deceiveth many, let us investigate." And the wise men and the priests weighed Merlin in the balance and his goods, and his men servants, and his maid servants, and his ox, and his ass, and found them wanting; yea, muchly.

And it came to pass that the nation, because of his loud mouth and much bragging, did condemn the ungodly Merlin.

Then in his wrath he said, "The nation be dod dund. I will not repent nor improve my evil ways. Verily, I will force them to bow down and worship me."

Then it came to pass he was loudly cursed by men of all nations as a false prophet, and his guns came to be a sign of damnation to the owner thereof. And many men lost their religion by trusting to the handiwork of the false prophet. And again I say unto ye, many men lost their souls by blaspheming, because in their ignorance they had purchased of his goods. And when a wise priest and a leader of men, named Coquinut, did pray with Merlin and try to show him the evil of his way, and with tears in his eyes did beseech the said Merlin to follow the noble example of his predecessor, the ungodly Merlin did blaspheme, and because of his hardness of heart say, "Get thee behind me, thou ex-game hog, and get a mighty move on, or I will smite thee off the face of the earth, and all thy tribe of sportsmen, with my jaw bone, as Samson did with the jaw bone of another ass."

Then the sportsmen of the nation rose up as one man and said, "Down with the hypocrite!"

And it came to pass that in the last days the Lord, who loves justice, did consign the ungodly Merlin to the bottomless pit. And there was much rejoicing throughout the land thereat. Amen.

HIS FAVORITE LOADS.

Nothing but a sheet of paper or some similar target will tell the true story of a charge of shot. A few lucky shots at game prove nothing. Of course, your target must be backed with something to test penetration. For that purpose I have never found anything better than soft, clear pine.

In judging smokeless powders, strength, quickness, cleanliness, noise, recoil, smokelessness and pattern are to be considered. Bursting strain is not considered, for when properly loaded none of the high grade powders are dangerous. E. C. makes too much smoke, too much noise, has too much recoil, is rather slow, and load for load gives less penetration than most other bulk powders. While liable to bunch

small shot, it is as good as any at long range with coarse shot. The same faults exist in Schulte, except in pattern. Schultze has also a disagreeable smell. Dupont is all right, except a little too much smoke and a good deal too much noise. There are 2 points in which L. & R. needs to be greatly improved; unburned grains are left in the barrel and it makes altogether too much noise. Blue Ribbon I discard as worthless. It has no force. I shot a red squirrel at about 4 rods distance with No. 6 shot. It killed him dead as a doornail. I filled him with shot and knocked him 4 feet away from the log on which he was running, but not a shot went through; they lodged against the skin on the other side. I call that a decided lack of penetration. I have found that Blue Ribbon powder will cause pitting in gun barrels unle s extreme care is taken in cleaning the weapon.

Troisdorf has the least smoke of any powder I ever used, except Walsrode. It makes little noise and is as quick as the quickest, with but light recoil. It will put as many shot in a 30 inch circle at 40 yards as will E. C., and with much better distribution. However, it is a soft powder and requires careful loading. If loaded in the following manner it will give as good results in pattern and penetration as can be obtained from any powder: Winchester's Leader shell, 2⅝ inch; 2¾ or 3 drams powder, never more for a 12 gauge gun. On the powder put a trap wad with just 35 pounds pressure, then a ¼ and ⅛ inch black edge wad. Use not more than 1⅛ ounce shot, and if as coarse as 6's, 1 ounce is better. Cover with a thin top wad, and crimp well. A load that will kill a woodcock anywhere inside of a 3 foot circle at 16 yards is 2½ drachms Troisdorf trap; 2 ⅛-inch black edge wads. Take B thickness card wads and punch the center out with a 32 calibre wad cutter; make a dipper that will hold ⅜ ounce of shot, No. 9 or 10. Put in a dipperful of shot, then a punched wad. Do this 3 times until you have 1½ ounces of shot in your shell, cover with a top wad, and crimp. Using a cylinder bore you will get your bird at 25 yards if you aim within 2 feet of it.

To load buckshot: Take small size buckshot, 2¾ drams powder, 1 trap wad, 1⅜ inch white felt and 1 A thickness card wad. Put in about 2 deep of No. 10 shot, then buckshot, placing them in the center. Cover with fine shot and repeat until you have 9 or 12 buckshot in your load, cover the last 3 wads and crimp. Fired from a medium choke gun at 35 yards, this charge will put all the buckshot inside an 18 inch circle.

W. E. Stoddart, Montpelier, Vt.

CONDEMNS THE REPEATING SHOT GUN.

Jamesville, Mo.

Editor RECREATION:

I have noticed many articles in RECREATION in regard to the pump gun. Some writers denounce it as a game hog's weapon without going into details. Then someone will deny the charge and defend the weapon by such arguments as: "It is the strongest shooting gun in the market. I keep my Parker to look at; my pump gun to shoot. For a target smasher and game getter it discounts the double barrel."

I can not understand how any true sportsman and advocate of game protection can use or defend this monstrosity among guns. If some one should invent a gun that would throw a continual stream of shot at a flock of birds until they were out of sight there would be instant protest from game protectors, and probably laws would be enacted prohibiting the use of such a weapon. Yet who can deny that the pump is a near approach to such an engine of destruction; and is it not safe to assume that a great majority of the present users of pump guns would gladly adopt a still more murderous arm? Many users of this weapon give us as an excuse that they are the only first class gun obtainable at anything like the price. That is not the case; there are many first class hammer guns to be had at prices ranging from $16 to $25; among them are the Ithaca, Syracuse and Forehand. For durability and shooting qualities the guns named are the equal to any made at any price, hammer or hammerless.

Some advance the theory that the pump is a humane weapon, enabling its user to quickly put wounded birds out of misery. Nine out of 10 users of the repeating shot gun will pump lead at a flock of birds until they are out of sight or until the gun is empty. The first 2 or 3 shots kill most of the birds hit. The last 3 make more cripples than could ever be made with a double barrel. The man with the double barrel gets in 2 shots in quick succession at short range, thus dropping the highest possible per cent of hit birds and before he can reload the remainder are out of range. In chicken shooting, when a covey is found, only the first 2 birds that take wing are killed; while if a pump gun was used there would be no chance for the remaining birds to escape while the hunter was breaking his gun and reloading. No, the hog behind the pump stands with finger on trigger and 5 charges still at his command and it is a cold day if any birds escape.

George Harne of Syracuse, New York, was granted a patent on January 14th for an automatic shot gun. This gun is prac-

tically the same as the pump gun except that the forward and back movement is automatic, the recoil being the motive power. Another man has invented a similar contrivance. The hope is already being expressed among the better class of sportsmen that these guns will not be allowed to come into general use. There should be a law prohibiting the use of both. Failing in that, it is still the duty of every true sportsmen and game protector to raise his voice against the use of such murderous weapons. Double Barrel.

This is as severe a criticism as I have ever printed of any gun or cartridge. Now you watch the Winchester Company and see if it withdraws its ad from RECREATION, or brings a libel suit against me, *a la* Tommy Peters and Paddy Marlin.—EDITOR.

A NEW THEORY.

I was much interested in the article from Edmonton, written by H. B. Spratt, but was sorry you did not roast him as he deserves.

I use a 16 bore shot gun and have a .303 British rifle. I like the 16 bore the better, as the shot flies faster and does more effective killing. I shot a mallard duck at 95 measured paces and hit 2 more in the same flock. I do not like to see men pick their shots. I never shoot at birds less than 60 yards off, as I want to give them a chance to get away. Of course I often hit and lose them, but that is the only true way not to be a pot shot or a game hog.

Last fall I shot a buck and doe, in the Beaver hills, with one shot. They were standing side by side and the bullet from my .303 went through both, breaking their shoulder blades. On the same day I killed 2 more deer with 2 shots. I quit then, as I am no hog.

W. E. Heist, Alta, Can.

ANSWER.

It would seem that a man would have to push pretty hard on his gun to kill a mallard at 95 steps, unless they were mighty short steps. You say you measured the paces, but you do not say how long each pace was. It might have been only a foot. In that case, it would not have been a notable shot; but if you stepped 32 or 34 inches each time, that would make your story really remarkable. Of course accidents will happen, if you keep on shooting, but if you have a gun that will kill regularly at 80 yards, there are thousands of men who would like to buy it.

I have never before heard a real sportsman advocate the wounding of birds and letting them get away. I had always supposed the most sportsmanlike way was to kill the birds as suddenly as possible, and to recover as large a percentage of those hit as possible. This theory of yours, that the test of sportsmanship is in hitting birds and letting them get away, instead of killing them, is new.—EDITOR.

ASK THE MAKER.

I have a Winchester 22, model '90. Have used both U. M. C. and Winchester shells, but like the Winchester best. I find them more accurate in my gun. While using U. M. C. cartridges I had one stick in the carrier. I then took 2 Winchester shells of same caliber and putting the U. M. C. between them I placed a rule on top and found the U. M. C. a full 1-32 inch the shortest. Should like to know if others have found the same difference. The Winchester shell boxes are labeled 7½ grains powder and 45 grains lead, while the U. M. C.'s read 7 grains powder and 45 lead. Why should they be different? Where can I procure bird lime? Have been told that it would be just the thing for catching English sparrows.

G. D. Burns, Minneapolis, Minn.

ANSWER.

I have never heard of a similar difficulty with the U. M. C. 22 rifle cartridge. It is possible the shells used in your arm may have had the bullets pressed deeper than is the case with the Winchester's. This would make the cartridge a trifle shorter and might cause the trouble. Write the U. M. C. Co. direct in regard to this matter, sending them some of the defective ammunition. They would, no doubt, be glad to get the information and replace the defective shells free of charge.

Bird lime for catching English sparrows may be bought from any dealer in taxidermists' goods who advertises in RECREATION.—EDITOR.

WHICH IS BEST?

There seems no end of conflicting views regarding the all around rifle. I have heard that Mr. Shields has done a good bit with the rifle. I suggest that he give us his view of an all around weapon. I hunted for years with a rifle and got more game than I could now with a shot gun. Should I design a gun it would be of 38 caliber, chambered for a 350 grain solid ball, or a 330 grain hollow point and 70 grains of black powder, or its equivalent in nitro. It would have also a second cartridge, a 100-yard load, with as light a ball as I could get, not much heavier than a buck shot, for small game.

Why is it the U. S. Army always has a weapon not quite so good as those in general use? The old Springfields are not up to the Remington single shot, nor does the Krag equal the Lee. Is it true that the action of the Mauser is better than

either? It is so claimed. Is there any clothing really waterproof? I've used oil-skin, rubber and mackintosh; all leaked on the shoulder.

Jno. A. Elliott, M. D., Northumberland, Pa.

I prefer to leave these questions in the hands of my readers, many of whom are thoroughly competent to handle them.

—EDITOR.

SMALL SHOT.

For 11 years I have been traveling through this part of Massachusetts with a shooting gallery. A few years ago the RECREATION readers among my patrons began asking why I did not use Peters shells, saying they had seen them advertised in their favorite magazine. At that time Peters ammunition could not be bought anywhere in Worcester county. To oblige my friends I procured a supply from headquarters, and later we induced a large concern in Pittsfield and another at North Adams to handle Peters goods. At Great Barrington one fall my partner and I had 3 galleries, side by side, and used 20,000 Peters shells.

That Peters goods ever found sale in Worcester county is due wholly to the efforts of RECREATION readers. That they are in much less demand at present goes without saying. I am still in the business, and I give my patrons what they ask for. At present they are worrying along with U. M. C.'s and Winchesters, but the bulls-eye bell rings about as often as ever.

Chas. Hamel, North Adams, Mass.

I have just been testing the new lubricated metal patched bullets, made by the National Projectile Works, of this city, and am confident there is no other projectile on the market that compares favorably with them for accurate shooting. In my first testing of the new wire-wound bullet I shot 5 out of 8 shots into a 1½ inch circle at 50 yards, hunting sights, muzzle rest, using 25 grains Laflin & Rand's 30 caliber smokeless powder, 30-30-160 Winchester lubricated metal patched bullet, and my little 30-30 Winchester rifle. I firmly believe this new bullet is an important improvement over the dry mantled bullet now so commonly in use. The new bullet has been patented, a company organized for its manufacture in this city, and machines are now being completed for making these bullets in large quantities and at reasonable prices. I am pleased to recommend this bullet to all who have high velocity rifles and do not wish to have them ruined by the use of dry metal patched bullets.

Geo. H. Newell, Grand Rapids, Mich.

Among pump guns I have used the Winchester, the Spencer and the Burgess. All are good, but with none of them can I shoot so well as with a double barrel. I have found the 12 bore Pieper, $75 grade, an admirable gun. So is the $40 grade Remington, with the additional advantage of unusually long range. For duck shooting the Lefever 10 bore, with 32 inch barrels, has given me great satisfaction. Am now using a 12 gauge Smith which I had made to order with 2 sets of barrels; one 28, the other 32 inch. The short barrels, of which one is cylinder and the other modified choke, I use for wing shooting. The long pair are choked to the limit. The combination makes as good an all around gun as one could wish. My conclusion is that a strong, light, well balanced gun that fits the user will give satisfaction no matter what name is stamped on it. A score of American makers are building just that sort of gun, and one is as good as another.

M. A. Curl, Rosehill, O.

I must add a few lines to what C. L. Adam says of the 44-40, as I have been a user of that gun 6 years and consider it an excellent weapon. I am not a crack shot, but have done satisfactory shooting with it.

I get better results with Dupont No. 2 smokeless powder than with any other. It is certainly the cleanest powder I ever used, and as nearly smokeless as is possible to make. I use the same powder in a 38 caliber revolver and greatly prefer it to black. With the latter the barrel fouls rapidly; but with No. 2 I can fire an unlimited number of shots, all equally accurate. The old black powder guns used with a suitable smokeless powder are as good as the modern small bores.

I would say to A. W. Webly that the 32 hand ejector revolver would be too light for 100 yard shooting. He will find a special heavy weight 38 a better weapon at that range. Sportsman, Harney, Md.

In February RECREATION A. D. R. asks which is best for duck shooting, a 10 or a 12 bore, and whether a 30 or a 32 inch barrel is preferable. The popular gun in the Northwest for ducks and geese is still the 10 gauge, 32 inch, 10 to 12 pounder. I am doing plenty of execution with an 8½ pound, 12 gauge, 32 inch gun which I had built to order by the Ithaca Gun Co. It is the $60 grade, with their double thick nitro breech, chambered for 3 inch shell and bored especially for No. 4 shot. I use 3½ drams Du Pont smokeless, 1¼ ounces No. 4 shot, and my friends are often surprised at the long kills I make. A 30 inch barrel gives as much penetration with nitro powder as a longer one, but the pattern of the 32 inch barrel is about 10 per cent better as a rule. P. S. L., Sioux City, Ia.

NATURAL HISTORY.

When a bird or a wild animal is killed, that is the end of it. If photographed, it may still live and its educational and scientific value is multiplied indefinitely.

THE MUCH NAMED WHITETAIL DEER.

W. T. HORNADAY, in the Zoological Society Bulletin.

The general zoologist, interested more in animals than in their names, who attempts to stand midway between the small body of technical zoologists and the masses of the unscientific public, is certain to be torn by conflicting emotions. Compared with him, Prometheus was a comfortable and even happy man. He must cheerfully confront the masses with the assurance that scientific zoology is the foundation of all infallibility, even while the vultures of Nomenclature are gnawing at his vitals. Whether he will or no, he must change the scientific names on beasts and birds as often as the inexorable scientific leaflet demands, and without making a wry face carry them out to 3 decimal places.

There are times, however, when the general zoologist is filled by a wild desire to go baersark, and say things. In his calmer moments, he firmly resolves to cut loose from all scientific names, and make an open campaign with common sense as the only issue. He writes a scorching lecture entitled "Popular versus Unpopular Nomenclature;" which so relieves his mind that he calms down sufficiently to go out and make a fresh lot of changes on his labels.

To-day, the name makers are in strife as to who wields the heaviest pick and shovel, and who can dig the deepest after fossil names for living animals. It matters not for how many decades, or centuries, the name of a popular wild animal has been in the public prints, nor how many million people are acquainted with it. If your hunter of fossil names discovers a particularly obscure deposit of antediluvian science, straightway he hies him to the unworked cemetery, and digs and explores, regardless of the risk of being caught by many kinds of ancient germs.

Possibly he finds that some prehistoric nobody, whose scientific work died a-borning, bestowed on some wild animal a Latin name, or at least insinuated one, 15 minutes prior to the bestowal of the name by which the millions of to-day know it. The newly found name is tenderly taken up, scraped, disinfected, and patched until it will hold together. It is then brought into the light of day, and laid as an offering at the feet of the fetish called Priority. This means that the familiar name, the one in universal use, must fall down, and give place to the newly found fossil.

But there is one source of grim satisfaction. Each fossil name is certain to be knocked out by other fossil names.

As an illustration, take the Virginia, or whitetail deer, a modest and unassuming animal, and very set in its ways. To the unassisted lay mind there is no more excuse for changing its name every year than there would be in renaming Washington at every session of Congress; but what do we hear.

In 1785, right or wrong, Boddaert named it *Cervus virginianus.*

In 1827 and 1835 and 1841, 3 other authors mistakenly gave it 3 other names, without effect.

From 1785 to 1884 the following authors wrote of this animal as *Cervus virginianus:*

1788, GMELIN.	1831, GODMAN.
1789, ZIMMERMAN.	1836, SCHREBER.
1792, KERR.	1842, DEKAY.
1801, SHAW.	1844, WAGNER.
1822, DEMAREST.	1851, AUDUBON.
1823, SAY.	BACHMAN.
1825, HARLAN.	1857, BAIRD.
1830, DOUGHTY.	1877, CATON.

During the century covered as above, several foreign authors wrote of this animal under other names than that recognized by the foregoing array of highly respectable authorities.

With a century of general use in America, the name *Cervus virginianus* had become not only widely known, but one might suppose it to be well fixed, also. Now mark its fall, and the result.

In 1884, by common consent, the leading American mammalogists adopted a name bestowed on this animal, in 1842, *Cariacus virginianus;* in 1895, Allen called it *Dorcelaphus virginianus;* in 1897, Rhoades changed it to *Dorcelaphus americanus:* in 1898, in a book printed on very good paper, Lydekker (of England) seriously adopts for this animal *Mazama americana;* in 1899, Miller dug up *Odocoileus americanus;* in 1902, Allen proposes to call it *Dama virginiana.*

What next? In the language of the graduating essay, whither are we drifting?

To the general zoologist, all this naming, and re-naming, and tre-naming, of which the above is merely a sample case, would be amusing, if it were not so serious! It does not phase the general public, for through all this erratic bestowal and use of unpopular names, the good old popular name, whitetail deer, shines like a beacon, permanently fixed. The bother

comes when a zoologist is required to write a scientific as well as popular label and use the latest and the absolutely satisfactory-to-all scientific name.

It looks as if the worship of the Priority fetish has gone far enough. The situation is becoming ridiculous. There are about 20 good men in the mammalogy line who should stop resurrecting fossil names, get together on a common sense, practical basis, cremate Priority in a fiery furnace, and give us for our most important animals some names that will go thundering down the ages.

AGAIN THE HAWK QUESTION.

In spite of the costly experience of the State of Pennsylvania, the elaborate investigations and publications of the United States Department of Agriculture, and the repeated summarizing of the facts in RECREATION, the ghost of the all-destroying hawk still stalks abroad. In witness whereof I submit the following letters:

I notice an article in June RECREATION by H. V. Shelley, who claims the crow, hawk and owl are good friends of the farmer and wants to have them protected by law. Evidently this man has never seen a farm. If he had he would have seen scarecrows in the fields, put there to keep the rascal crows from pulling up all the corn. Hawks are even more destructive. When they pick up a chicken or young turkey and fly away with it, the farmer does not appreciate their friendship.

Geo. J. Lee, Hoosick Falls, N. Y.

The readers of RECREATION who live in Western Minnesota should show that its teaching is not in vain by declaring war on the numerous hawks that infest our prairies. If we all did our duty, we could materially reduce the number of these enemies of our game birds.

I killed 6 chicken hawks here in one day. Two I caught in the act of raiding covies of chickens.

O. S. Lowell, Glenwood, Minn.

Once more I refer all readers of RECREATION to Bulletin No. 3, Division of Ornithology and Mammalogy, of the Department of Agriculture, published by the Government in 1893, and entitled "The Hawks and Owls of the United States in Their Relation to Agriculture," by Dr. A. K. Fisher. This valuable volume sets forth the long series of investigations of the food habits of the hawks and owls of the United States, with full details. Thousands of stomachs of our hawks and owls, in some cases several hundred specimens of a single species, were examined most carefully, and their contents inventoried. Of the red tailed hawk, 562 stomachs were examined, and the results are published in full. There is no question about either the thoroughness of the investigations, or the accuracy of the result.

They establish the fact that of all the hawks and owls in North America, only 2 species do sufficient damage, beyond the good they accomplish, to justify their destruction. These are the sharp-shinned hawk and Cooper's hawk, and wherever they are found, it is right to kill them. The other hawks and owls feed chiefly on wild mice and rats, grasshoppers, beetles and shrews, and the actual service which they render the farmer far more than compensates him for the occasional domestic fowls which they destroy.

For the third time, I refer to the experience of the State of Pennsylvania, which, in the belief that all hawks and owls were injurious to the interests of farmers, provided for the payment of bounties for their destruction. An immense number of hawks and owls were killed, and immmediately the farms were overrun by a horde of destructive rats, mice and insects, which increased with astonishing rapidity, because the birds which had held them in check had been destroyed. After an immense amount of damage had been inflicted to the agricultural interests of the State, what is known as the "Fool Hawk Law", was hurriedly repealed, and now the Pennsylvania farmers know their feathered friends when they see them.

The trouble with Mr. Lee is that he is not taking pains to inform himself regarding the food habits of the hawks which he would destroy. He does not give them credit for the thousands of destructive mice and rats that they kill on his farm each year. Thanks to the investigations that have been so ably conducted by the Department of Agriculture, there is no room for argument on the hawk question. Excepting the 2 species named above, the hawks and owls are among the farmers' best friends, and should be carefully protected.

W. T. Hornaday.

CAN CROWS SMELL GUNPOWDER?

The old time notion that crows smell powder is erroneous. I have made war on crows for nearly 30 years, and have shot as many as 300 in a single winter. The way I get them is by building a blind, and hanging near it one or 2 dead crows on a pole that will reach above the surrounding brush. In 2½ hours I have shot 36 crows from one blind. Surely some of them had a chance to smell powder, as I fired 48 times to kill the 36. I have known them to alight within 10 feet of where I was hidden.

They are always on the alert, and it is the acuteness of their sight and hearing that makes it so difficult to approach them.

They are particularly suspicious of any stealthy movement. It is often easy to get within shot range of crows by acting as if you did not see them and were bound on some other business. With all their cunning, I do not believe they can tell a gun from a pitchfork, nor gunpowder from sawdust.

Gilbert King, Howard, R. I.

In a recent issue of RECREATION a correspondents asks if the crow can smell gunpowder. I answer in the negative. It is not the smell that crows fear; it is the sight of the gun itself. If you are not carrying a gun you can often walk in under the tree on which crows are sitting. Then take a gun and see how near you can get to them: They will retreat long before you are within gun range. To further test this matter, take a piece of wood, a limb or pole, about 4 feet long, throw it over your shoulder and see how soon the crows will spot you. The crow's fear of a gun has become instinct. Young birds taken from the nest often become furious at the sight of a stick in one's hand, while they show no fear of the person himself.

A. W. Blain, Jr., Detroit, Mich.

I see in August RECREATION that R. Armstrong is undecided as to whether or not crows can smell gunpowder. No, brother, they can not. What they smell is the strong nitro primer. Crows are as deaf as posts and blind of both eyes, but they have miraculous noses. I have frequently observed them take alarm at 200 yards when approached with a gun down wind. Use black powder primers and you will have less trouble. If that is not possible, smear your gun with asafœtida and stalk them up wind under cover of the night. The latter way is the better.

W. S. Crolly, Hoosic Falls, N. Y.

I doubt whether crows can smell powder to the extent of being able in that way to detect the approach of a hunter. The rascals were a pest here last year, and a friend and I hunted them 3 days, killing about 25. We got 9 in one day by following a large flock and calling them repeatedly.

I saw a white squirrel near here last fall, and got within 6 feet of it. It was perfectly white save for a small black spot on top of its head and a few black hairs at the tip of the tail. Later I saw another. Both resembled, in size and actions, the common chipmunk.

F. C. Muzzy, Bristol, N. H.

THE SQUIRRELS AND THE CORN.

Avoca, Iowa, a town of 2,000 inhabitants, probably contains more squirrels than any other town in the country. Just East of it is a large grove abounding in these beautiful creatures, the owner not allowing them to be killed. Our streets are lined with trees, and the residence portion of the town is fairly alive with squirrels. They are never molested and are exceedingly tame, often taking food from one's hand. I have frequently seen them carry off ears of corn. Only a few days ago one carried off, in less than half an hour, a crockful of walnuts from my kitchen. Last summer I noticed the ground under a cottonwood tree near my house was covered with freshly fallen leaves. This proved to be the work of squirrels. On the stem of each cut leaf was a swelling caused by a deposit of eggs of some insect. The squirrels had eaten the eggs from each leaf before dropping it. Dr. C. W. Hardman, Avoca, Ia.

In the fall of 1897, I was hunting near Carthage, N. Y. While in a piece of maplewoods near a field of corn, I saw something moving about 30 feet from the ground in one of the trees. On close observation I saw it was an ear of corn and that some animal was trying to pull it into a hole. After waiting a few minutes I fired direct at the ear of corn. It fell to the ground, and out of the hole popped a grey squirrel, which ran to the top of the tree. I do not know why he should have tried to carry a whole ear of corn into the hole, as he was so near the field he could have taken a kernel at a time and soon have had a supply sufficient for his need.

H. Sylvester, Lima, N. Y.

F. E. Williams, of Spring Valley, Minn., tells in RECREATION about grey squirrels carrying corn from farmers' cribs and hiding it until they have a bushel or more stored away. I have made a close study of the habits of squirrels, both wild and tame, and never until last spring saw one carry an ear of corn. In March I observed a grey squirrel come out of a grove and cross an open field to a corn crib. In a few minutes he returned, carrying an ear of corn, holding it by setting the front lower teeth into the pith and his upper teeth in the edge of the cob. I do not think this is a common habit; anyway, it was the first case I ever noticed.

W. R. Felton, Coffeyville, Kan.

I note, in August RECREATION, that you question the statement of F. E. Williams, Spring Valley, Minn., in regard to grey squirrels carrying off whole ears of corn. In the early part of last June I went into a field to see a farmer who was plowing, about 40 rods from a barn, and between it and an oak grove. I saw a squirrel going across the plowed land toward the barn. In a few minutes he came back with a

whole ear of corn in his mouth. He passed near us, so I could not mistake what he was carrying. For my part, I should enjoy seeing squirrels around too much to begrudge them a little corn.

A. E. Beckwith, Cheney, Minn.

ARE WILD ANIMALS JEALOUS?

I notice in June RECREATION some remarks by Mr. Browne in regard to squirrels injuring birds' nests, I believe it, and from observation I think I have arrived at the true reason why they do so. I notice in all animals a great amount of jealousy and in many cases resistance if they think their lawful domains are about to be usurped. The squirrel is more prone to show this trait than any other member of creation.

A number of years ago I was tutor to a gentleman's family in Ireland. He had a fine estate and the grounds were kept in the best trim. A private path led through a part of the grounds called the hazel wood. A number of large pine trees were scattered through the hazel shrubs and this part of the wood was fairly swarming with red squirrels. A rustic seat was placed under one of the pine trees and when I had time I used to sit there a few minutes in passing and watch the fun and frolic of the little fellows. When they got used to me and saw I was not dangerous many would come in the direction of the seat when they heard my step.

One morning in approaching this spot I heard a terrible chatter of sparrows and when I came up I saw the cause. Someone had left a few stalks of ripe wheat on the seat; the sparrows wanted the grain and the squirrels were guarding it like so many little dogs. They would not let a bird alight on the bench.

Early one season a few squirrels settled in a large fir tree opposite the library window where I taught my pupils. The grass was always kept short and the squirrels amused themselves by leaping on and off the boughs, which drooped to within a few feet of the ground. Occasionally a male blackbird, who seemed to live not far away, would hop under the same tree and pick up insects or worms from the ground. If seen by the large squirrels of this little colony he was pursued and had to leave the grounds. One morning we observed the blackbird had this little space all to himself for a much longer time than usual. He had settled down on his breast and was picking in the closely mown turf to his heart's content. On the bough right over him I saw a squirrel almost motionless, but apparently studying out from what position it could drop on the blackbird. At last it dropped its paws around the bird so as to cover it completely and kept it so 4 or 5 seconds. After what appeared a fierce struggle the bird escaped, leaving a few feathers flying. We never saw the blackbird under the tree again and the squirrel seemed satisfied that no further intrusion would occur.

W. J. Fleming, New York City.

A CITY BIRD COLONY.

Since writing you last my bluebirds successfully reared a brood of young, 5 or 6 in all. I only saw 4 together on my oak tree, but I think there were one or 2 more, as I noticed one that appeared larger and stronger than the 4 and left the house a day or 2 earlier. Both the old and young bluebirds make daily visits to my yard.

June 17 a male house wren appeared and started to build a nest in the bluebirds' abode in spite of the vigorous protests of the former occupants. They made swift dashes at the wren on numerous occasions, but the latter easily got out of reach, kept on singing and nest building, and finally succeeded in blockading the entrance with small sticks or twigs, effectually excluding any bird larger than a wren. The wren was alone for over a week, and I thought it would be the old story of the past 2 years, when throughout the whole season only a male bird was about. However, a few days ago Jenny appeared and the female is now completing the nest.

The bluebirds, who appeared to wish to renest in their house, have given up the idea, and are going into a flower pot house. I hope they will raise another brood, as they certainly have ample time before cold weather.

I have a pair of tree swallows. Their brood left the house yesterday, June 29. The old birds appear to wish to renest, though they are said to raise only one brood in a season.

I also have 40 purple martins, about 15 pairs of which have young. The old birds must destroy millions of insects, as they find the food in the air and feed the young from daylight to dark.

All these birds find homes on a city lot. 35 x 127 feet. All I do is to provide them boxes and protect them from the English sparrows.

An English sparrow will stand about everything except being shot at. A good air gun solves the problem nicely, makes little noise, but does the work.

Frederick Wahl, Milwaukee, Wis.

NOT ONE REDEEMING TRAIT.

At last some one has been found to say a good word for the English sparrow. According to a report from Washington, the sparrows in that city have been devouring the 17-year locusts, and in this way have prevented their great spread.

It was first noticed, according to this despatch, that the sparrows were not so common as usual on the streets, and it was then found that they had gathered in enormous numbers in the parks, where the locusts were most numerous. This is a surprise, for it has not been generally thought that these sparrows are insect-eating birls; but the fat grub of the 17-year locust evidently suits their taste, and the birds are reported as growing plump on their new diet.—Boston(Mass.) Herald.

The above clipping suggests the idea that perhaps the English sparrow is not, after all, so black as he is painted.

M. H. Root, Minersville, Pa.

The detested English sparrow has recently demonstrated that he can be of some use after all. Last month the 17-year locusts came in great numbers, and the sparrows had a grand feast, evidently considering the insect pests a rare delicacy. The birds ate the bodies and left the wings untouched. In a few days the incessant hum of the locusts became fainter and soon ceased altogether ,showing how thoroughly *Passer domesticus* had done his work. It is generally believed he is not an insectivorous bird, but if the locust tickles his palate why should not other kinds of insects? If it can be shown that these birds destroy different forms of obnoxious insects, it might be well to protect them; but I hardly think this one good trait could overbalance their many bad ones, especially that of persecuting other birds.

Harry P. Hays, Hollidaysburg, Pa.

ANSWER.

Regarding this matter, A. K. Fisher, of the U. S. Biological Survey, Washington, D. C., says:

The English sparrow, together with a large proportion of our native birds, fed extensively on the 17-year locusts which recently swarmed in this vicinity. As this insect is of little economic importance the work of the sparrow can not be considered of great value.

A LIVE SPARROW TRAP.

I notice Maude Meredith's appeal to the boys to take arms against the English sparrows and by good shooting end them.

It would be a smart boy who could beat the record of a sparrow killer once in my possession. This pest exterminator was a common screech owl, caught in Cook county, Texas. I made him a wire cage, with a dark box in which to spend the daytime. He soon became as gentle as any pet could be. It was amusing to hear his queer little screeches when he was waiting to take food from my hands. I fed him raw beef and sometimes rabbit flesh. He became so tame I gave him his liberty. Every evening just before dusk he would perch on a dead limb in the yard, and woe unto the rat or mouse that came in sight.

Later I moved to Davis, Indian Territory, and occupied a house with a long gallery in front. Between the ceiling and the roof of that gallery lived countless sparrows. One day I caught one and gave it to the owl, who fairly tore it from my hands in his eagerness to devour it.

Soon after I let him out of his cage that evening I heard a great commotion among the sparrows. The owl had raided a nest, and I found him with a young bird in each claw and another in his beak. After that I seldom fed him. Nevertheless, he fared royally, catching 2 and sometimes 3 sparrows for a meal, for he was a voracious little rascal. When he had devoured the pests on my place he foraged all over town.

I taught him many little tricks, such as playing dead, catching food tossed to him, etc. His favorite trick was, when I would allow it, to crawl into my coat pockets in search of food. Altogether he was an interesting as well as a useful pet, and if opportunity offers I shall get another. They are easily tamed, are cleanly, and as mouse and rat catchers are better than any cat.

Dan Bosley, Wapanucka, Ind. Ter.

RAISING BLACK DUCKS FOR DECOYS.

On a recent trip to Roanoke Island I met Mr. Spencer Daniels, of Wauchese, N. C., who has probably raised more Canada geese, black ducks and mallards for decoys than any other man in Dare county.

At the time of my visit he had about 50 geese and nearly as many ducks. Like everyone else, he got his original start from cripples; but the last 15 or 20 years has been breeding from raised birds exclusively. His experience with geese is practically the same as that outlined in my article in November RECREATION.

In raising ducks, however, he maintains that it is absolutely necessary they should have fish in plenty; and until well feathered should be kept from water, unless accompanied by their parents. He usually takes the eggs from the mother bird and hatches them under a hen. After the young ducks are hatched, he feeds and tends them himself.

If allowed access to the water while young, ducks are liable to get wet through and drown. They should also be kept out of heavy rain storms. Of 30 ducks hatched last spring, 27 were living at the time of my visit, 3 having been killed by rats. These were mallard and black duck. It is not necessary that they be fed small fish. Mr. Daniels threw several large fish in the pen while I was there and the young ducks fed on the flies which soon settled on the fish in swarms. He said that when the fish decayed, the ducks would eat the maggots, which, together with wet meal, were their best food.

In his pen was a female black duck which he winged 15 or 20 years ago. This duck has laid 12 to 30 eggs annually, and has outlived several mates. About 2 years ago her neck feathers began to turn white and now her head is nearly all white. She laid and hatched this year as usual and seemed in good health.

A. S. Doane, Waterlilly, N. C.

A FLESH EATING SHEEP.

A most unnatural and surprising propensity developed in a young lamb owned by John C. Fouts, of New Washington, Ind. A ewe dropped 2 lambs; one she refused to suckle and it was taught to take milk from a bottle. When about a month old it was allowed to run in the yard, with the fowls. Mrs. Fouts missed some of her young chickens and turkeys, and could not account for their loss, until one day on going into the yard she discovered her pet lamb pulling to pieces and devouring a young turkey. She told her husband, but he declared that such a thing was impossible. However, he kept a sharp watch on the lamb and one day saw it pursuing the young chickens. It caught one, pulled it to pieces and ate it; holding the fowl to the ground with the front feet just as a dog would do. A number of persons were called in to witness this extraordinary case of atavism, and Mrs. Fouts is still sacrificing chickens and turkeys.

The *Ovis* of the zoologists belongs to the *Artiodactyle* or paired toed ruminants. Geologically, sheep are thought to be modern animals, as their horns are not found in the tertiary beds which have yielded abundant modifications of antelope and deer. The *Equus* tribe not infrequently show atavism, eating flesh, and developing supernumerary toes. This condition can be accounted for by examining the bones and teeth of the Eocene *Eohippus* and *Orohippus,* which clearly indicate that these early ancestors of the horse were carnivorous; but what about the animal that from time immemorial has been held as an emblem of innocence, and has furnished cuticle for a badge for all masons? Will some zoologist please explain? W. F. Work, Charlestown, Ind.

NATURAL HISTORY NOTES.

Mr. Henry Chaffee, of this city, informs me that he saw a flock of 45 or more passenger pigeons in the outskirts of this city about 2 weeks ago. Mr. Chaffee is thoroughly familiar with the appearance of the birds mentioned, so there is no possibility of his being mistaken in regard to the identity of the birds. Mr. Chaffee told me he had seen thousands of the pigeons in his youth, but that it has been many years since any have been seen in this part of the country. Perhaps they are coming back. If so, let us not start in to bag them all, but give them a show.

Game is more plentiful in this locality than for many years. Quails especially are numerous and deer are frequently seen in the woods and pastures. The time may come when it will be possible to bag a deer even if one can not afford a trip to Maine.

L. A. Perry, Putnam, Conn.

I see your readers can not agree as to how grouse drink. The fact of the matter is that in wet weather grouse take water from the leaves; and in dry weather drink from springs and streams. Last fall I camped at various spots along the Queets river in the Olympic mountains. One morning I went to a spring near camp to wash dough from a pan. While I stood silently watching a lot of salmon fry eat the dough, out came a grouse from the brush, dipped his bill in the water and drank, exactly as a barnyard fowl would do. Having got his fill, he took a dust bath in a spot where the loose, dry earth had been pawed by an elk. Then he returned to the spring, took another sip, and flew up the mountain side.

G. Y. Hibbard, Queets, Wash.

Will some one please tell me how to make a trap to catch snakes alive and without injuring them? Is there any way to remove the poison glands of a rattlesnake? If the fangs alone are taken out they will grow again. What is the best remedy for rattlesnake and copperhead bite?

V. A. L., Albany, N. Y.

Have you commenced to think of Christmas presents? If so, here is a suggestion: A yearly subscription to RECREATION furnishes one of the most delightful, instructive, entertaining Christmas presents you can possibly give a man or boy who is interested in nature, in fishing, shooting, amateur photography; or, who is fond of the woods, the fields, the mountains, the lakes or the rivers.

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Worcester,	B. H. Mosher,	Athol.

LOCAL WARDENS IN NEW JERSEY.

Mercer,	Jos. Ashmore,	124 Taylor St., Trenton.
Mercer.	Edw. Vanderbilt,	Dentzville, Trenton.
"	Roland Mitchell,	739 Centre St., Trenton.
Morris,	Joseph Pellet,	Pompton Plains.
"	Chas. W. Blake,	Dover.
"	Francis E. Cook,	Butler.
"	Calone Orr,	Hibernia.
Somerset,	G. E. Morris,	Somerville.
Sussex,	Isaac D. Williams,	Branchville.
Union,	A. H. Miller,	Cranford.
	C. M. Hawkins,	Roselle.
Warren,	Jacob Young, Reuben Warner,	Phillipsburg.
Monmouth.	Dory-Hunt,	Wanaque.
Hudson,	A. W. Letts,	51 Newark St., Hoboken.

LOCAL WARDENS IN PENNSYLVANIA.

Jefferson,	John Noll,	Sykesville.
Perry,	Samuel Sundy,	Lebo.
Warren.	F. P. Sweet,	Goodwill Hill.
"	Nelson Holmes,	Cornplanter.
Juniata,	Clifford Singer,	Oakland Mills.
"	Ezra Phillips,	McAlesterville.
Venango,	G. D. Benedict,	Pleasantville.
Potter,	Ira Murphy,	Coudersport.
"	Wiley Barrows,	Austin.
"	Chas. Barrows,	Austin.
Crawford,	Jasper Tillotson,	Tillotson.
"	Geo. T. Meyers,	Titusville.
"	J. B. Lamb,	Buel.
Cambria,	W. H. Lambert,	720 Coleman Ave., Johnstown.
Butler,	F. J. Forquer,	Murrinsville.
Allegheny,	S. H. Allen,	Natrona.
Beaver,	N. H. Covert,	Beaver Falls.
"	W. R. Keefer,	"
McKean,	C. A. Duke,	Duke Center.
"	L. P. Fessenden,	Granere.
"	Wm. Holsinger,	Stickney.
Lackawanna,	Wm. Weir,	Moosic.
"	Wm. Major,	"
Carbon,	Asa D. Hontz,	East Mauch Chunk.
Cumberland,	J. C. Gill,	Mechanicsburg.
Wyoming,	Cyrus Walter,	Tunkhannock.
Tioga,	E. B. Beaumont, Jr.,	Lawrenceville.
"	G. H. Simmons,	Westfield.
Lycoming,	Jas. J. Brennan,	Oval.
"	B. D. Kurtz,	Cammal.
Delaware,	Walter Lusson,	Ardmore.
Montgomery,	L. C. Parsons,	Academy.
Bradford,	Geo. B. Loop,	Sayre.
Clarion,	Isaac Keener,	New Bethlehem.
Cameron,	Harry Hemphill,	Emporium.
Clinton,	M. C. Kepler,	Renovo.
"	Geo. L. Kepler.	Renovo.
Northumberland,	G. W. Roher,	505 Anthracite St., Shamokin.
Elk,	D. R. Lobaugh,	Ridgway.

LOCAL WARDENS IN MICHIGAN.

County.	Name of Warden.	Address.
Ottawa,	W. H. Dunham,	Drenthe.
Kalamazoo,	C. E. Miller,	Augusta.
Berrien,	W. A. Palmer,	Buchanan.
Cass,	Thomas Dewey,	Dowagiac.
Hillsdale,	C. A. Stone,	Hillsdale.
Lake,	John Trieber,	Peacock,

LOCAL WARDENS IN VIRGINIA.

Mecklenburg,	J. H. Ogburn,	South Hil.
King William,	N. H Montague,	Palls.
Smythe,	J. M. Hughes,	Chatham Hill.
King & Queen,	R. D. Bates,	Newtown.
Louisa,	J. P. Harris,	Applegrove.
Henrico,	W. J. Lynham,	412 W. Marshall. Richmond.
East Rockingham,	E.J.Carickhoff,	Harrisonburg.

LOCAL WARDENS IN WYOMING.

Fremont,	Nelson Yarnall,	Dubois.
Uinta,	S. N. Leek, F. L. Peterson,	Jackson.
Carbon,	Kirk Dyer,	Medicine Bow.
Laramie,	Martin Breither,	Cheyenne.

LOCAL WARDENS IN TENNESSEE.

Sumner,	W. G. Harris,	Gallatin.
Stewart,	John H. Lory,	Bear Spring.
Robertson,	C. C. Bell,	Springfield.
Montgomery,	P. W. Humphrey,	Clarksville.
Madison,	H. T. Rushing,	Jackson.

LOCAL WARDENS IN NEBRASKA.

Hall,	E. C. Statler,	Grand Island

LOCAL WARDENS IN NEW HAMPSHIRE.

Cheshire,	S. C. Ellis,	Keene.
Sullivan,	G. A. Blake,	Lempster.
"	J. W. Davidson,	Charlestown.

LOCAL WARDENS IN VERMONT.

Rutland,	Wm. J. Liddle,	Box 281, Fair Haven
Windsor,	F. A. Tarbell,	West Bridgewater.
Orleans,	E. G. Moulton,	Derby Line.
Essex,	H. S. Lund,	Granby.

LOCAL WARDENS IN ILLINOIS.

Rock Island,	D. M. Slottard.	12th Ave and 17th St., Moline.
Iroquois,	J. L. Peacock,	Sheldon.

LOCAL WARDENS IN OKLAHOMA.

Kiowa and Comanche Nation,	A. C. Cooper,	Ft. Sill.

LOCAL WARDENS IN IOWA.

Clinton,	D. L. Pascol,	Grand Mound.
Pottawattamie,	Dr. C. Engel,	Crescent.

LOCAL WARDENS IN WASHINGTON.

Okanogan,	James West,	Methow.
Stevens Co.,	Jacob Martin,	Newport.

LOCAL WARDENS IN UTAH.

Washington,	S. C. Goddard,	New Harmony.

LOCAL CHAPTERS.

Albert Lea, Minn.,	H. A. Morgan,	Rear Warden.
Angelica, N. Y.,	C. A. Lathrop,	"
Augusta, Mont.,	H. Sherman,	"
Austin, Minn.,	G. F. Baird,	"
Austin, Pa.,	W. S. Warner,	"
Boston, Mass.,	Capt. W. I. Stone,	"
Buffalo, N. Y.,	H. C. Gardiner,	"
Cammal, Pa.,	B. A. Ovenshire,	"
Champaign Co., O.	Hy. F. MacCracken Urbana,	"
Charlestown, N. H.,	W. M. Buswell,	"
Cheyenne, Wyo.,	J. Hennessy,	"
Choteau, Mont.,	G. A. Gorham,	"
Cincinnati, Ohio,	B. W. Morris,	"
Coudersport, Pa.,	I. L. Murphy,	"
Cresco, Iowa,	J. L. Platt,	"
Davis, W. Va.,	J. Heltzen,	"
Dowagiac, Mich.,	W. F. Hoyt,	"
East Mauch Chunk, Pa.,	E. F. Pry,	"
Evansville, Ind.,	F. M. Gilbert,	"
Fontanet, Ind.,	W. H. Perry,	"
Ft. Wayne, Ind.,	W. L. Waltemarth	"
Great Falls, Mont.,	J. M. Gaunt,	"
Heron Lake, Minn.,	K. C. Buckeye,	"
Hollidaysb'g, Pa.,	H. D. Hewit,	"
Hopkinsville, Ky.,	Hunter Wood,	"
Indianapolis, Ind.,	Joseph E. Bell,	"
Jerome, Ariz.,	Dr. L. A. Hawkins,	"
Johnsonburg, Pa.,	W. J. Stebbins,	"
Kalispell, Mont.,	John Eakright,	"
Keene, N. H.,	F. P. Beedle,	"
Kingfisher, Okla.,	A. C. Ambrose,	Rear Warden.
Lake Co., Ind.,	Dr. R. C. Mackey,	"
Lawton, O. T.,	Marion Miller,	"
Logansport, Ind.,	E. B. McConnell,	"
Ludington, Mich.,	G. R. Cartier,	"
Mechanicsburg, Pa.,	Dr. J. H. Swartz,	"
Minturn, Colo.,	A. B. Walter,	"
New Albany, Ind.,	Dr. J. F. Weathers,	"
New Bethlehem, Pa.,	Isaac Keener,	"
Penn Yan, N. Y.,	Dr. H. R. Phillips,	"
Princeton, Ind.,	H. A. Yeager,	"
Reynoldsville, Pa.,	C. F. Hoffman,	"
Ridgway, Pa.,	T. J. Maxwell,	"
Rochester, N. Y.,	C. H McChesney	"
St. Paul, Minn.,	O. T. Denny,	"
St. Thomas, Ont.,	L. J. Hall,	"
Schenectady, N. Y.,	J. W. Furnside,	"
Seattle, Wash.,	M. Kelly,	"
Syracuse, N. Y.,	C. C. Truesdell,	"
Terre Haute, Ind.,	C. F. Thiede,	"
The Dalles, Ore.,	C. B. Cushing,	"
Walden, N. Y.,	J. W. Reid,	"
Wichita, Kas.,	Gerald Volk,	"
Winona, Minn.,	C. M. Morse,	"

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Blair Camera Co., Rochester, N.Y. Photographic goods.
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E. B. Smith, Bourse Bldg., Philadelphia, Pa.

There are thousands of men in the United States who should be life members. Why don't they join? Will someone please take a club and wake them up?

A FEW SUGGESTIONS.

Would it not be a good plan to nave a brief summary of the fish and game laws published in RECREATION? Also for the L. A. S. to have posters outlining the laws sent to all the post offices in the country, so that all might know "where they are at"? This would result in a saving of some fish and game and of some money to unintentional offenders.

Ought not some measure be adopted to prevent so much cutting of timber along our streams and so much ditching and draining of swamp land? People are getting more eager for land. They cut the fringe of willows and alders from along the streams and clear off and drain the swamps in order to have a few more rods of land for pasturage or tillage. This robs the reserve storehouses of water that should be given during the summer's heat and drought. Old people here tell me there is not half so much water in our streams here in summer as there was 40 years ago. Then there were plenty of trout in all the streams; now many once famous trout streams become dry in the summer.

I suggest, as others have done, that there be a bounty on hawks and foxes. The fox, especially, is a great game hog, as all sportsmen know. Tell us how to trap him and poison him.

The State fish hatcheries should be increased in number; and they should stop planting trout fry and put out only fingerlings or yearling trout. Few of the fry planted in our streams ever survive the first spring freshet.

J. W. Phillips, Otselic Center, N. Y.

ANSWER.

It would, of course, be a good plan to publish a synopsis of the game laws in RECREATION, but it would take at least 100 pages to hold them, and I can not possibly spare so much space. Any man in the United States or Canada can get a copy of the U. M. C. Game Law Book, free of charge, by addressing that company at 315 Broadway, New York. This contains a synopsis of the game laws of all the States and all the Canadian Provinces. This obviates the necessity of using up space in RECREATION for printing the laws.

It would be a good plan to have posters distributed everywhere in the United States giving a synopsis of the game laws, but this would cost hundreds of thousands of dollars, and who is to pay the printer's bill? The League of American Sportsmen has printed many thousands of muslin posters and sent them out, yet I find on examining the membership roll that you have thus far failed to contribute one dollar toward this expense. Is it not astonishing that any man who is at all interested in the protection of game should refuse to become a member of this League, and thus to aid in its work.

A blank application for membership has been sent you and I shall anxiously await your response.—EDITOR.

LEAGUE NOTES.

The Hon. J. J. Doughty, Chief Warden of the Georgia Division of the L. A. S., is doing some great work. He has made several addresses of late before various organized bodies in that State, appealing for the co-operation and support of the people in protecting the game, the game fishes, the song birds and the forests, and is having many calls from various parts of the State for League literature, membership blanks, etc. As a result the division is growing rapidly and the League now has more members in Georgia than in any Southern State except South Carolina. Mr. Doughty has prepared a comprehensive, up-to-date game and fish bill which will be presented to the Legislature at its next session, and a strong movement has been organized to secure its passage. There is every reason to believe that the bill will be promptly passed and approved by the Governor. Then we can say, as in some previous instances, the League did it; and the A. D. G. H. said the League would never do anything worth mentioning.

Local warden J. W. Furnside, of Schenectady, N. Y., who, by the way, is a charter member of the League, recently arrested 2 men for illegal fishing and took them before the justice of the peace, who imposed a good round fine on them. Mr. Furnside is a stayer. He was instrumental in organizing a local chapter at Schenectady 3 years ago, and from that day to this he has never missed an opportunity to run in a law breaker. He has a large score of them to his credit, and I am informed that illegal hunting is now rarely heard of in his vicinity. Game and fish hogs have learned that it is dangerous to violate any law as long as Furnside is on the warpath and they are lying low in consequence.

Barber.—What do you think of this soap?

Victim.—Never tasted better.—Exchange.

I take several sportsmen's periodicals, but prefer RECREATION to all of them.

E. A. Shacklito, Marcus, Wash.

RECREATION is the best sportsmen's journal published.

G. T. Phillips, Rutland, Vt.

FORESTRY.

EDITED BY DR B. E. FERNOW,

Director of the New York School of Forestry, Cornell University assisted by Dr. John C. Gifford of the same institution.

It takes 30 years to grow a tree and 30 minutes to cut it down and destroy it.

FORESTRY ADMINISTRATION IN INDIA.

WILLARD W. CLARK.
Of the Philippine Forestry Service.

PART I.

In studying forest management as carried on by the British Government in India it is advantageous to consider first the history of the development of forestry in that country. The natives of India have been from ages immemorial the greatest enemies of their own forests. They possess customs handed down from ancient times that must be overcome before good productive forests can be grown. The custom of burning over the forests so as to gain more land for pasture is perhaps the most detrimental. Many thousand square miles where there was once an abundance of forest growth have been made deserts by the continual periodic burning over by fires set by the natives.

Another custom that is hard on forestry and agriculture as well, is that of shifting cultivation. A native will burn over a piece of land, plant a crop in the ashes, cultivate it several years, till the fertilizer of ashes has been consumed, and then abandon it. Moving to another piece of forest land he continues his depredations, reducing the forest to a desert. The custom of using dried manure for fuel even where there is an abundance of wood, seems due to a singular, depraved taste and is responsible for the impoverishment of much land that otherwise might be well fertilized by cow manure.

Such treatment of the forests, especially in a tropical country, has a detrimental influence. The deterioration of the climate of whole districts and even countries has followed the destruction of forests. The once wooded Dalmatia is now a stony desert. Persia, once one of the granaries of the East, is barren and desolate over a large extent of the country. North Africa, formerly one of the chief corn producers for Rome, is subject to the severest droughts. Spain, Italy, Sicily, Greece, and Asia Minor have suffered greatly from deforestation; and finally, but not least, India has been injured by the destruction of her forests, especially in the Deccan and Northwestern parts. The influence on the productiveness of the country due to the deposit of silt on agricultural land, is one of the most serious results of deforestation. The experience of France, Switzerland and China of having many thousand acres of good land made a desert by the deposit on it of silt washed down from the hills from which the forests have been removed, has been repeated in India. Many streams that were navigable for some distance from their mouths have been filled with silt and many millions must be spent annually to keep them open.

The first forest management in India was applied to the teak. This tree has been from ancient times considered a royal tree, that is, belonging to the ruler of the district, and could be cut only under his supervision. When the British took control of the government the teak naturally fell under their supervision, but its cutting was not at first restricted. The great demand for this fine wood for shipbuilding caused its rapid removal so that it was feared the teak supply would be consumed, and in 1805 the first ordinance was passed for the protection of Indian forests. It prohibited the cutting of teak below 9 inches in diameter. A conservator of the forests of India, Captain Watson, was appointed in 1806. This conservatorship, however, proved unpopular. Many lumbermen who had been prospering when the cutting in the government forests was unprotected were hindred in procuring supplies and therefore used all their influence against the conservatorship. Because of unpopularity the conservatorship was abandoned in 1823 and the most unrestricted fellings occurred immediately following that time.

In 1847 Dr. Gibson showed the government the physical effects produced on the country by the removal of the forests and was appointed conservator of forests by the Bombay government. In 1855 Lord Dalhousie laid down for the first time the outline of a permanent forest policy. In 1856 Sir Diedrich Brandis was appointed superintendent of forests in Pegu and undertook the carrying out of a forest policy. He formed working plans and with the aid of a system of native contractors was able to exploit great forest areas and obtain suitable prices for the forest products. Thus a practical system of working the forests was created under his charge. The size and importance of the Indian forestry service has steadily grown since Sir Diedrich Brandis took charge. In 1869 there were 57 forest officers. In 1882 there were 94. At this latter date the number of forest officers was increased to 1,000 and the

average salary of the forest officer was also increased. The service was arranged so as to give the rangers and deputy rangers a chance to rise in the service and the better educated guards were given an opportunity of becoming foresters. The whole service, especially the provincial service, was arranged with a view of attracting the most suitable classes of the country, as follows:

The inspector general of forests is the professional adviser of the government of India and the local governments on all important forestry subjects, controls the forest school, at Dehra Dun, and has charge or general supervision of the forest surveys and working plans. The conservator of forests, whether in charge of the forest management of a whole province or a circle forming part of a province, is regarded as the head of the department of that district and is subject to the inspector general. The conservator has more influence on the prosperity of the department under his charge than any other officer. The director of the forest school at Dehra Dun is a conservator of the school circle. A conservatorship, whether of a province or a circle, is divided into a number of divisions, each in charge of members of the controlling staff. The more important divisions are in charge of officers of the imperial service, while the minor divisions are in charge of provincial service officers. These divisions are divided into ranges looked after either by junior officers of the provincial service or by rangers and deputy rangers, and in some instances by foresters. The ranger is the executive officer of the tract under his charge and is directly responsible to the divisional officer for the protection and management of the forest in each detail. Rangers should possess high technical education. The range is divided into a number of beats, in charge of forest guards. The number of various officers in the forest service is as follows:

Imperial Service.—Inspector General of Forests, 1; Conservators, 19; Deputy Conservators, 117; Assistant Deputy Conservators, 63.

Provincial Service.—Extra Deputy Conservators, 5; Extra Assistant Deputy Conservators, 107; Rangers, 437; Deputy Rangers and Foresters, 1,226; Guards, 8,533; total, 10,508.

The British forest officers were formerly educated in the continental forest schools. In 1884 a national forest school was started in connection with the Cooper's Hill college for engineering. The course extends over 3 years. Most of the last year is spent visiting the schools and forests on the continent. Dr. Schlich is the present head of the college, Professor Fisher being his assistant. A rigid physical examination must be passed before entering the forest school. The degree of C. I. E. (Certified Indian Engineer) is given on completion of the course.

The Dehra Dun forest school educates rangers and foresters for the province included within the Bengal presidency and Madras. There are 2 courses, one given in English for the rangers and the other in the vernacular for the foresters. The school was started in 1878 as the result of the suggestion of Sir D. Brandis. Capt. F. Bailey, R. E., was the first director; J. S. Gamble is the present director.

WHAT A GOVERNMENT FORESTER MUST KNOW.

The interior department employs a force of supervisors, superintendents, inspectors and rangers on the forest reservations, who are selected not by civil service examinations, but are expected to be able to answer the following questions:

What is the extent of your general education? State whether you have received a common school, high school, college or university education.

State fully what technical, scientific or professional studies you have pursued.

If you have attended any scientific, professional or technical school or college, state what school or college, the length of time you attended each, the courses of study pursued, whether you were graduated, and the exact date of such graduation.

If you have any practical knowledge of a mechanical trade or trades, the length of time you have worked thereat, and where, when (giving dates) and under whom you have so worked. If you have served an apprenticeship, so state.

If there are any branches of the profession or occupation for which you regard yourself as especially expert, state what branches.

What has been your business or occupation for each of the past five years?

State fully where, when and how long and for whom you worked, and what particular work you did in the following:

Have you ever felled timber with ax and saw? State where and when.

Have you ever driven teams in the woods, skidding, hauling, etc.? State where and when.

Can you handle and keep in order a crosscut saw?

Have you ever handled steam logging devices, skidders, pull boat, etc.? State where, when and how long.

Have you ever built or operated chutes and slides or flumes for timber? Where and for whom?

Have you ever laid out logging roads for wagons and for sleighs?

Have you ever built such roads?

Have you ever built or operated logging railways?

Have you ever built dams?

Have you driven logs or rafted timber?

Have you built log houses or camps?

Have you worked in saw-mills? State what, where and when.

Have you worked at any other woodcraft? State what.

Have you scaled timber and lumber, and what scale do you know best?

Have you estimated standing timber? State where, when, how long and for whom.

What methods of estimating are you most familiar with? Here state how you usually estimate.

Do you know the strip and circle methods?

Have you ever measured standing timber?

State how, where, when and how long, and what method you pursued.

Can you readily follow old blazed lines?

Can you run a compass course readily and safely?

Have you practice in pacing distances?

Have you ever run and blazed lines in the woods?

Have you ever mapped out a piece of woods?

Have you ever marked out timber for cutting?

Do you know our common forest trees?

Have you had experience in farming?

Have you ever handled men as boss, foreman or employer? State where, when and under what circumstances.

Have you ever carried on a business of your own? State what, where and when.

Can you keep books or have you had experience as a clerk? State where and how it was obtained.

Can you pack a horse and travel on snowshoes?

Have you had experience in camping?

Can you handle a boat and canoe?

Are you safe in finding your way in the woods?

Have you had experience in fighting forest fires? State where and when gained.

Have you had experience in handling range cattle, sheep and horses? State where and when gained.

Give the name and address of 3 persons for whom you have worked and who could testify to your capacity in service.

There are so far only about 100 positions which are permanent through the year; the number is increased to a maximum of about 400 during the summer months.

The 6 superintendents and 2 inspectors at present employed receive $2,000 a year, while the variable number of rangers receive variable salaries of $60 to $90 a month.

The force is entirely inadequate to do much good.

TRAILS.

The value of a system of properly constructed trails in a country such as the Adirondacks can not be over estimated. They are the cheapest means of rendering places accessible in mountainous districts. They are of great use in the control of forest fires. In this respect they are equal if not, all things considered, superior to fire lanes. A fire lane is easily neglected and soon grows up in bushes. Fire lanes produce a draft through the woods, and let in the light so that weeds start and spread. Fire lanes also consume much space. At best a fire lane is only a point of vantage in case of fire and this a trail is also if properly located. I do not, of course, refer to railroad fire lanes, which are essential. A trail should be so well cut that a horse can follow it easily, on easy ground winding around hills; following water courses with lines of least resistance. There is little gained by going directly over a hill when one can go around it. People fail to realize that the bale of a bucket is as long in a vertical as in a horizontal position. These trails will in time become roads. Already they are followed by many telephone lines. The trail is a great labor saver. We need, however, better trails; that is, trails which have been laid out with some care and not by guess, so that pack horses may be used.

SEEDLINGS.

A kind of fertilizer which is being used more and more is wood ashes. All wood ashes should be saved and kept in a dry place until needed for the lawn or garden. A coating of ashes around an old tree will often revive it to a surprising degree. These ashes are collected from house to house in Canada where hard wood is burnt and are shipped to all parts of this country. They lack, of course, nitrogen, but other mineral necessities of the plant are there in the proper proportions. Wood ashes are Nature's own formula. They contain no weed seeds and have no disagreeable qualities. If it is not unpractical to compost the leaves which are falling so abundantly at this time of the year it would pay farmers to have a special place with a hard floor for the burning of leaves and brush so that the ashes might be saved.

A most interesting and valuable publication entitled "A History of the Lumber Industry in the State of New York," by Col. Wm. F. Fox, has recently appeared. It is bulletin 34 of the Bureau of Forestry, Department of Agriculture, Washington, D. C. Every person interested in the development of the State of New York should own a copy. A valuable feature of this publication is a map showing the progress of settlement in the State.

A magnificent report has just been issued by our government, relating to the proposed Appalachian park. Although reservations are being frequently set aside in our Western country the actual purchase of this vast territory in our Southern mountains will be an epoch-making event in the history of forestry in this country.

The forestry commission of Michigan is exerting itself to accomplish something definite in forestry in the near future. Both the University of Michigan and the Michigan Agricultural college have chairs of forestry and offer several courses in the subject.

Mr. Gifford Pinchot, chief of the Bureau of Forestry, is now visiting the Philippines on a forestry inspection tour, at the request of President Roosevelt.

The students of the forestry college of Cornell university are preparing a journal called Forestry Quarterly, which will soon make its appearance.

PURE AND IMPURE FOODS.

"What a Man Eats He Is."

Edited by C. F. LANGWORTHY, PH.D.

Author of "On Citraconic, Itaconic and Mesaconic Acids," "Fish as Food," etc.

THE CHRISTMAS GOOSE.

To many, Christmas would not be complete without its roast goose, and it seems an almost necessary part of the famous Christmases of literature. Was any Christmas dinner ever better relished than that of the Cratchits, Tiny Tim and the others, in Dickens' "Christmas Carol," with its roast goose, stuffed with sage and onions and brought in high procession from the baker's by Master Peter and the 2 young Cratchits, then eked out with apple sauce and mashed potatoes, and followed by the famous pudding boiled in the wash-house copper? Of the goose and its place in the diet, the following statements are made by Doctor Thudichum, who, in his writings, has combined cookery, history, and philosophy in a most agreeable way.

"The goose was much valued in antiquity as a delicate dish by the Egyptians, and by the ancient Britons at the time of the invasion of Julius Cæsar. It was also surrounded with a halo of sanctity, and used as an authority for the authentification of an oath by Rhadamanthus and his Lycian subjects. At Rome, the goose was for a period not eaten, but honored as the savior of the Capitol from the besieging Gauls; but after Cæsar's conquest of Gaul, geese, particularly those from Picardy in France, were largely imported into and consumed in Rome. A Roman consul, Metellus Scipio, invented, according to Pliny, the art of fattening geese and making their livers more delicate. The learned physician, Julius Cæsar Scaliger, had much humorous admiration for these animals. It may be interesting to cooks to know that the French chemist Mêmery saw a goose which had been trained by a cook to turn a spit. It seized the handle with its beak, and by alternately extending and contracting its neck it did the work of a turnspit.

"A goose intended for roasting should not be excessively fat, as it will lose most of its grease during roasting. In trimming and trailing the goose, the lungs, technically called soal, or soul, which adhere to the chest-wall, are not removed. The goose may receive various kinds of stuffing, of which that made with sage and onions has been popular, although, owing to the essential oil of the sage, it is rather indigestible. The best stuffing for a goose are small Dutch, or finger potatoes, sliced fine, salted and peppered, and mixed with the kidney and caul fat from the interior of the goose, finely chopped, or with half their weight of suet or scraped bacon. The same treatment is applicable to chestnuts when used to stuff a goose. Some force or sausage meat may be mixed with them to increase their taste. The practice of eating apple sauce with goose has given rise to a particular kind of stuffing, described by Soyer, in which the apples and the sage and onions are blended with grated boiled potatoes. A sharp sauce for roast goose, described by Ignotus and Kitchener, which was to be poured into the body of the goose, called by the former 'a secret worth knowing,' was evidently appreciated by these authors.

"A goose may be braised in the plain or stuffed condition; when well done it practically becomes roast goose, but admits of being made more juicy. Stewed goose may be immersed in an aciduous and savory jelly or aspic. If the meat be boned it adds to the convenience of the cook as well as the consumer.

"Where, as in the lake districts of North Germany, hundreds of thousands of geese are annually reared to serve as human food, a great variety of preparations have to be employed to make the several parts of the animal eatable and transportable in a preserved state. The breast is mostly pickled and smoked and sold as Pomeranian goose breast. It is eaten raw in thin slices, like Westphalian ham, with bread and butter, and is of excellent taste. The livers are transformed into pâtés. The other pieces of the geese are made into a pickled and stewed preparation, which is preserved in fat and consumed gradually during the winter. It is called Pökel-Gans, pickled goose. A similar mode of curing, cooking, and preserving is practised at Bayonne, in France."

THE IMPROVEMENT OF ORCHARDS.

The majority of persons, at least of those who live in temperate climates, will probably agree that in the long run no fruit is so satisfactory as the apple. If the dwellers in the tropics prefer other fruits, it is perhaps because the apple does not grow to perfection except in cooler regions. Most of the tropical fruits bear transportation to temperate regions, but the best fruits of temperate regions can not be so successfully transported to the tropics and marketed there. Like all fresh fruits, the apple is not very nutritious in proportion to its bulk, containing as it

does some 85 per cent water in the edible portion. The principal nutritive material consists of carbo-hydrates, chiefly sugars. In addition to the nutrients which they furnish apples are of great value as appetizers, and the salts, acids and other bodies which they contain are undoubtedly beneficial. Furthermore, they render the diet attractive, and this is a quality which can not be measured in chemical terms. Many apples are raised on farms and in gardens but the crop might be largely increased by giving proper attention to old trees and by planting new ones. Care should be taken to select the well known sorts rather than the wonderful varieties so often offered for sale, which are almost always worthless. The experiments lately made by Professor Card, of the Rhode Island Experiment Station, to increase the yield of an old orchard, are of interest.

"It was a home orchard of something less than an acre, containing many varieties, which had been planted about 25 years. When work was begun the trees looked unpromising. They had made little growth, and the trunks were covered with lichens or moss. No fruit had been produced for several years. The treatment given by the Station was such as any farmer might afford.

"The first thing done was to scrape off the rough, loose bark from the trunks and branches, and prune the trees. This rough bark may do little harm, but it denotes lack of thrift, and affords a harbor for insects. The pruning was simple in this case; only dead branches and crowding suckers were removed. How much to prune in other cases will depend on the condition of the trees. If they are old and decrepit, with dying branches and failing strength, pruning should be vigorous. An apple tree can be renewed like a grape vine. A wealth of suckers is its signal that such renewal is needed. In extreme cases a tree may even be cut to the ground and another built upon a young shoot which springs up. This is seldom demanded, but with old trees which have lost their vigor, whose branches are diseased, and which have made but little growth, quicker returns and better fruit may come from heroic treatment. Cut out the old branches ruthlessly. Leave vigorous young suckers to take their place. A new top will quickly form and better fruit will result. If trees are not so far on the decline such pruning will not be needed. It may then be confined to thinning out useless branches. Sunshine and air should have free access."

In addition to trimming the trees thoroughly, Professor Card had them sprayed with Bordeaux mixture and Paris green, to destroy fungi and insect enemies. The soil around the trees was cultivated and suitable fertilizers were applied. The effect on the trees was marked. Two years after the treatment began about $80 worth of fruit was harvested, though before Professor Card began his experiments the orchard had borne little, if any, fruit.

BUCKWHEAT FLOUR.

According to A. L. Winton, it is a not uncommon practice to sell various mixtures containing inferior wheat flour, corn flour or other cereal products, under the name of buckwheat flour. These mixtures are much cheaper to prepare than genuine buckwheat flour, but usually sell for the same price in the retail market. While it is true, as is sometimes urged by way of excuse for this illegal practice, that some buyers prefer to use a mixture of buckwheat and other flour, it is likewise true that others prefer clear buckwheat, and that all buyers have the right to know exactly what they are paying for; a right which is denied them when mixtures containing cereals are sold to them under the name of buckwheat flour. Such mixtures can only be legally sold in Connecticut either under distinctive names, "not under the name of another article," or "so labeled or tagged as plainly or correctly to show that they are mixtures, or compounds, combinations or blends."

"Self-raising" or "prepared" buckwheat flour, put up in sealed and labeled packages, contains the requisite quantity of baking powder and salt for cooking by simply being mixed with water or milk. The flour in these preparations is often a mixture containing wheat or corn flour, or both. Rice and barley flour are also occasionally used. The trade names under which pure self-raising flours are sold as well as the information given on the packages, show that they are mixtures, and although it is not always stated that various kinds of flour are present, there is no evident intent of deception. The samples examined in Connecticut in 1901, under the provisions of the State pure food law, may be classified as follows:

Buckwheat flour not found adulterated.	63
Buckwheat flour adulterated.....	44
Adulterated with wheat flour.....	26
Adulterated with corn flour.....	9
Adulterated with wheat and corn flour..	9
"Prepared" or "self-raising" buckwheat flour	8
Total	115

Under the head of unadulterated buckwheat flour are included all samples in which no appreciable quantity of matter foreign to the buckwheat kernel was detected.

Minute quantities of wheat starch, such as might readily come from the dust of the mill or warehouse, are disregarded.

The samples designated adulterated buckwheat flour were bought in each case for buckwheat flour and the buyer was not informed either by word or label that they were mixtures. They contain in addition to buckwheat, either wheat flour or corn flour or both. In 2 samples rye flour appeared to be present although probably through accident rather than design.

The preparations called "prepared" or "self-raising" buckwheat flour were sold in sealed packages with full instructions for use on the label. In each case, the directions stated that the flour should be mixed with water or milk, immediately before cooking, without the addition of salt, baking powder, yeast or other leavening material. Microscopic examination disclosed the presence of wheat flour in all these preparations and of corn flour in all but 3. Rice and barley flour in small quantity may have been contained in some of the samples, but in the presence of buckwheat and wheat flour those are difficult of detection.

IS NEW BREAD INDIGESTIBLE?

It is commonly said that new bread is indigestible. Many believe, however, that this is not necessarily the case, and that new bread is not less thoroughly digested than old bread, if equally well masticated. According to The Lancet:

"A slice of stale bread on being broken with the teeth resolves into more or less hard, gritty particles, which, unless they were softened by the saliva, could scarcely be swallowed. The particles would irritate the throat and gullet. The fact is, therefore, that a man is compelled thoroughly to masticate and to impregnate stale bread with saliva before he swallows it. This act, of course, partially digests the bread and thus makes it in a fit state for digestion and absorption farther on in the alimentary tract. This is why stale bread appears to be more digestible than new bread. New bread, on the contrary, is soft, doughty, or plastic, and there appears to be no necessity to soften it with saliva, hence it escapes the preliminary digestive action of the ptyalin of the saliva. New bread, in other words, is in reality 'bolted,' and bolting accounts for many of the ills arising from dyspepsia. Accordingly, hot rolls should be enjoyed for breakfast without any fear of dyspepsia as long as the bread is good and as long as pains are taken to masticate it thoroughly.

"It is a curious fact that stale bread is not more dry than new bread, for on submitting stale bread for a short time to a high temperature it regains its condition of newness and becomes soft or plastic; and this in spite of the fact that some moisture is of necessity driven off in the operation. It is probable that in new bread there is free water present, while in stale bread the water is still there, but in a condition of true chemical combination. It is this combination which compels us thoroughly to moisten and to masticate stale bread before we consign it to the gastric centers. Similarly, the indigestibility of the Norfolk dumpling is probably due to the fact that it is of tough, doughy consistency, and, therefore, should receive considerable mastication before it is swallowed. It is a sound physiological plan, therefore, to adopt the habit of chewing each morsel a great number of times."

Already many thousands of people are wondering what they are going to get for Christmas presents. Other thousands are wondering what they are going to give their friends. If you wish to make a present to a man or boy who is interested in shooting, fishing, amateur photography, or nature study, give him a year's subscription to RECREATION. Nothing you can possibly buy for $1 would give him so much pleasure as 12 issues of this magazine. Come early and avoid the rush.

It is related that an Atchison girl spends so much time looking for and reading "helpful" books, and "helpful" poems, that her sisters have to do all the work.

An Atchison husband hovered at Death's door so long his wife remarked that she supposed he was having his usual trouble to find the keyhole.—Atchison Globe.

Small Boy—Give me a large bottle of the worst medicine you have.

Druggist—What's the matter?

"I've been left alone with grandma, and she's been taken sick, and I'm going to get even with her!"

I secured 15 subscriptions for RECREATION in 3 days, with only a few minutes' work each day.

James M. Graves, Potsdam, N. Y.

RECREATION, is without exception, the best magazine for the price that has ever come under my notice.

Chas. H. Nye, Cincinnati, O.

I am charmed with RECREATION.

Miss Mary T. Aimar, Charleston, S. C.

PUBLISHER'S NOTES.

WHAT DEALERS SAY OF THE CENTURY CAMERA.

Every camera bought of you has been perfect in every respect, and has given entire satisfaction to our customers, as well as to ourselves. We sold 4 Century Grands on the strength of the excellent quality of workmanship, and all 4 went to friends of first customer.

Yours respectfully,
F. E. Colwell & Co., Albany, N. Y.

I am in receipt of the Grand Camera; it is a beautiful piece of work and does you great credit. It is the finest and best made camera on the market. It will have a large sale. Centurys are good sellers and never stay on the shelves.

Yours truly,
Wm. C. Cullen, New York City.

I have handled Century Cameras since they were first put on the market and have used them as my leading plate camera. I consider them the most perfect plate camera made, both in mechanical construction and finish.

Yours truly,
L. B. Wheaton, Worcester, Mass.

Your goods, which we have handled the past season, have been perfectly satisfactory and we consider them the best in your line.

Yours truly,
Harvey & Lewis, Hartford, Conn.

THE NEW SYRACUSE CATALOGUE.

The Syracuse Arms Co. has issued the finest gun catalogue I have ever seen. It illustrates their different grades of guns in various positions, and there is one page illustrating and numbering all the parts of these guns. Then there is a guide to these plates that gives the name of each part, thus making it an easy matter for a man to order any part of a gun which may give out. The cuts are among the finest ever made of guns, and are printed in brown ink, which brings out the details of make, finish and ornamentation in a way rarely equaled. The descriptive and explanatory text is full and complete, and altogether the catalogue is necessary to the well being of every shooter in the country. All shot gun shooters should send for this catalogue at once. When doing so please mention RECREATION.

ON THE 20TH CENTURY LIMITED.

This for the New York Central's "Twentieth Century Limited" is a moonlight courting of the muse:

Mounting space at a wonderful rate,
Connecting the ends of the Empire State,
Rushing through forest and rolling
through vale,
Climbing the hills and skirting the dale;
With a wing as fleet as the god of light,
Two lines of steel to guide its flight,
A grizzled man at the lever stood,
Promising himself that he'd "make good";
While behind him rolled in palatial style
Coaches filled with the rank and file,—
Men of finance, of letters and rail,
Ready to cheer with jovous hail
The greatest train that ever was run,
From the rising to the setting sun.
And thus it was with the "T. C. T.,"
The swiftest of all on the N. Y. C.

—J. E. B. in the Buffalo Commercial.

The Southern Railway Company has issued a handsomely illustrated pamphlet telling all about where to find various kinds of game in the South, and how to reach these different localities. The book also contains synopses of the game laws of various Southern States. Also a list of stations on the line of the Southern system, and its tributaries in the vicinity of which good shooting may be had. In this table will be found the names of good hotels and boarding houses; the names of responsible guides, their wages per day; names of business men who will give information to intending visitors, etc.

There are many pictures in this book which will awaken pleasant anticipations in the minds of any sportsmen who may chance to look at them. In case you send for a copy of the book, please mention RECREATION.

The N. K. Fairbank Company, Chicago, are offering to send the Fairy calendar for the gold circles from 10 Glycerine Tar Soap cartons. This year's calendar is made up of 5 large plaques, 4 of which do not contain any type matter but are exact reproductions of hand painted royal Vienna china, in 12 colors and gold, showing magnificent heads by Ryland.

These works of Ryland had to be copied with the greatest care by the best artists, then photographed, engraved on stone and put on through 12 successive printings, on the highest grade of plate paper.

Those who prefer, may, instead of the 10 gold circles from Fairbank's Glycerine Tar Soap box fronts, send 20 cents in stamps and secure the Fairy plate calendar for 1903.

I have received a handsome and interesting little book entitled, "Waterfowl along the Wisconsin Central Railway," which contains a great deal of interesting data for sportsmen. It is illustrated with pictures of many species of wild ducks and geese, and the descriptive text is full and complete. The book also contains a list of the names of stations on the Central where good shooting may be had, together with the names of hotels and boarding houses, rates charged by same, lakes and streams in each vicinity, distance of each from stations, etc.

Copies of this pamphlet may be had free by addressing J. C. Pond, G. P. A., Milwaukee, Wisconsin, and mentioning RECREATION.

The Natural Food Company, Niagara Falls, N. Y., has issued a book entitled "The Vital Question," which should be in the hands of every woman interested in providing pure and healthful food for a family. These people make the Shredded Wheat Biscuits, and in this book they tell how to prepare them, and how to make from them many delicious and inviting dishes. The book is a work of art, all the pictures being lithographed in colors, and it is well worth the having. It will be sent free to any woman who may ask for it, and who will say she saw it mentioned in RECREATION. Please send for it and do not forget to say where and how you learned about it.

The Wing Piano Co., No. 226 East 12th street, New York, has demonstrated in a practical way the value of honesty, energy, and keen discrimination in the building up of a great business. This house has been in business nearly 50 years, and has a reputation it may well feel proud of. Its great business has been created by judicious advertising and by dealing fairly and honestly with customers. I know several people who have Wing pianos in their houses, and who say they are fully up to the standard of the oldest and best known instruments in existence. If you have any idea of buying a piano, write Wing & Son and say you saw their ad in RECREATION.

H. J. Putman & Co.,
Minneapolis, Minn.

Dear Sirs:

The pair of boots, No. 678, which you made for me last August, have proven highly satisfactory. They have stood the rough usage in this mountainous country without any signs of wear, and are the best boots for engineering work that I have ever worn. Their waterproof qualities are just the thing for this climate.

Respectfully,
J. M. Belknap,
Asst. Engr., U. S. Engr. Corps.

The Conley Manufacturing Co., St. Joseph, Mo., writes me it has discontinued the use of rubberized duck for hunting coats, because of certain objectionable features that material has, and that the company has adopted instead the famous English khaki cloth, the same as used by the War Department for army uniforms. This material is practically noiseless in the brush, is of lighter weight, is waterproof and looks much better than the rubberized duck. Samples sent free on receipt of request, mentioning RECREATION.

F. C. Huyck & Sons, Albany, New York, have issued a handsome little book describing and illustrating their steamer rugs, sleigh rugs, automobile rugs, golf capes, lap robes, etc. The pictures in this book show how comfortable people may make themselves, even in stormy weather, if provided with the right kind of goods; and Huycks make the right kind. It would pay you to have a copy of this little book, and when you write for it, please say you saw it mentioned in RECREATION.

Did you ever notice that all through the hot weather Page fence did not sag between the posts? That is because all the horizontal wires are coiled, or spiralled, so they will let out and take up like a spring. The wire must be a great deal tougher and stronger than common Bessemer fence wire to make a coiled spring. We make our own wire because we have to use better wire. Page Woven Wire Fence Co., Adrian, Michigan.

The Edward Smith Indian Post Trading Company, of Flagstaff, Arizona, dealers in Navajo blankets, Indian pottery, baskets, curios, etc., with to engage several energetic, enterprising men to act as agents for their goods in Boston, New York, Philadelphia and Washington. The present great interest in Indian goods throughout the country should make the sale of them profitable and offer a good business opportunity.

Penn Yan, N. Y.

WEST END FURNITURE CO.

Dear Sirs—Your gun cabinet received and we are much pleased with it. It is a first class piece of furniture and speaks well for your firm.

Yours truly,
Mrs. Joel Egleston.

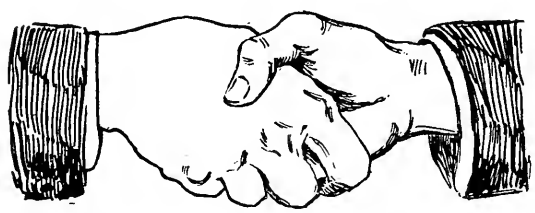
THE LEAGUE DID A LARGE PART OF IT.

In 1898 B. B. Odell was elected Governor of New York by a majority of 110,000. During the winter of 1901-2 he secured the enactment of a law permitting game dealers in this State to possess game throughout the year. This in direct opposition to the best interests of game protection. Furthermore, he vetoed a bill of which this League had secured the passage, to prohibit the sale of ruffed grouse.

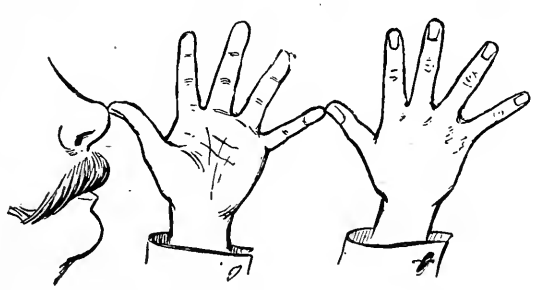
In the campaign just closed Governor Odell was re-elected by a majority of less than 12,000. You can draw your own conclusion.

Notice is hereby served on Mr. Odell and the Republican members of the New York Assembly that unless the cold storage bill is repealed, and unless the League bill for the prohibition of the sale of ruffed grouse, woodcock and quails is enacted during the coming winter, the League will swing at least 5 times as many votes from the Republican to the Democratic party in the next election, as it did in this one.

MY CHRISTMAS GREETINGS.



TO MY FRIENDS.



TO MY ENEMIES.

DOES NOT LIKE HIS OTHER NAME.

Office of
Charles O. Jackola,
Justice of the Peace, Notary Public.
Collections and Conveyancing.

Calumet, Mich., Oct. 4th, 1902.

G. O. Shields,
23 West 24th St., New York.

Sir: I have read your libelous article in October "Recreation" under the heading "Another Bunch of Michigan Swine" which refers to C. J. Wickstrom and myself of this city. Now Mr. Shields, in the first place go to your conscience (if you have one) and reflect a moment on the word "swine." You could not have found more libelous word in the dictionary. Now, do you not feel a little guilty of having left your animal nature to predominate over all conventionality and human propriety?—Now, do not think that you are doing a great humanitarian mission by calling people swine.

In the first instance our communication to you, at your own request was a private and priviledged one and in noway intended to fill the vacant space of your publication. In your letter to us you did not ask any information in regard to the catch of fish for purposes of publication. However, you have taken the authority to do so, and have thus violated every rule of private and priviledged communications. I presume you know that the law in this regard is very strict; at least you ought to know that you have no right to publish any private letters without first obtaining permission.

After having violated the laws and custom in this regard, then you go and libel and slander us in the most outrageous manner, which deserves, and rightly so, contempt and shame from every American.

It makes no difference to you, your publication or anyone else whether we caught one or a thousand punds of fish as long as they were caught legitimately; and you have no right to make inferences to suit your own fancy and then publish them unlawfully in a slanderous and libelous manner. For you future information and knowledge, let me tell you that we here understand the game and fish laws as well as you, perhaps better and enforce them when they are violated. It might be well for you to know also that we have the *human intelligence* to catch fish without seines or hand lines, as you would like have the readers of your publication to believe. I am ready to submit affidavits at any time and will do it when the proper time comes. that every fish caught by us was caught

legitimately. Further more we can get the game warden's affidavit to that effect. The game warden lives there at Lac La Belle, where the fish was caught, and saw us fishing.

We feel that you have wrongfully, maliciously and unlawfully slandered and libelled us and done us a great injustice and brought our names into disrespect and scandal. Now, what we want is fair play in this matter; we want you to retract every portion of your contemptuous article and make an apology like a man. And unless you do this we intent to push this thing to its bitterest end. We will give you this one change, so decide at once what you propose to do and wire or write to us. And remember that all our letters hereafter are not for publication until they should come before the court. Yours, etc.,

(Signed) Charles O. Jackola.

One way to avoid being called "a swine" is not to be one.—EDITOR.

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400 QAILS SAVED FOR SEED.

In the early part of October last the South Carolina Club, of Columbia, placed an order with a game dealer for 400 quails to be served at its annual banquet, which was to be given October 30th. South Carolina, in common with many other States, has a law prohibiting the sale of quails at any time. The game dealer in question arranged to get the quails from North Carolina, and hoped in that way to evade the local law. North Carolina has a law on her statute books prohibiting the export of quails from that State. The dealer said he could have the birds smuggled out of North Carolina and into the ice box of the club without being caught at it.

As soon as it became known that this order for quails had been placed, Mr. C. F. Dill, chief warden of the South Carolina division of the L. A. S., wrote the president of the club calling his attention to existing laws in the 2 States named, as well as to those of neighboring States, and requested that the order for quails be countermanded. A long correspondence ensued between Mr. Dill and the club, in which 2 or 3 other people finally took a hand. I was promptly notified of this proposed wholesale violation of the game laws of North Carolina, and at once communicated the facts to Dr. T. S. Palmer, of the Agricultural Department, suggesting that he also take steps to head off these would-be law breakers. He placed the matter in the hands of the Department of Justice, and notified the president of the South Carolina Club that in case he persisted in his efforts to walk over the statute books, he and his associates might expect to find themselves facing a United States judge.

For a time the president of the club assumed a defiant attitude; but finally concluded that discretion would be the better part of valor. The quail order was accordingly countermanded and the club decided to serve turkeys instead of quails. This was a wise change of mind on the part of the club officers. Turkeys are good enough for any man who does not care to go afield and kill game, and they are much cheaper at 15 cents a pound than quails are at $25 each. It is safe to say that if these gentlemen had persisted in their determination to eat quails, they would have had to pay at least that price for them, eventually.

Mr. Dill and Dr. Palmer are entitled to the gratitude of every sportsman in the country for their manly and vigorous action in this case, and all those in North Carolina and South Carolina would promptly join the League if they could be made to realize how much they owe it for having headed off this proposed wholesale destruction of their quails.

Jack Barberis, who keeps an alleged restaurant in Seattle, Washington, was recently fined $25 by Judge George for having 7 ruffed grouse in possession, in violation of law. Game Warden Hill and Deputy Warden Springer had previously made a descent on Barberis' shop, armed with a search warrant. Barberis said emphatically that he had no game of any kind in his house. The wardens were not satisfied with that statement and searched the premises. They found the birds in a box, covered with a few slabs of pork. When they began to open the box Barberis gave a war dance about them and reiterated the statement that there was no game in the box or in the house; that there was nothing in that box but pork. He was arrested, taken to court, and then pleaded guilty. The penalty provided by the State law for this offence is $100, and sportsmen interested in the case would like to have Judge George explain why he ignored the statute in fixing the charge at $25. It is safe to say that all decent sportsmen in Seattle, and those who go there in future, will steer clear of Barberis' house.

A rash and rambunctious raccoon
Tried to whistle a popular tune;
But he blew out his teeth,
Both above and beneath,
And is taking his food with a spoon.
—Life.

RECREATION is the finest magazine ever published. D. B. Kirk, Mt. Vernon, O.

Can anyone suppose that we would double the necessary cost of our brewing without a vital reason.

Would we spend so much on cleanliness? Would we cool the beer in plate glass rooms? Would we filter all the air that touches it? Would we age it for months in refrigerating rooms? Would we filter it? Would we sterilize every bottle after it is sealed?

Can anyone suppose that it is our good—rather than your good—that we serve by it?

Schlitz

We do it to attain absolute purity—to avoid the remotest possibility of germs—to make Schlitz Beer healthful—to escape the cause of biliousness; the lack of age and proper fermentation.

Why accept a common beer—brewed without any of these precautions—when Schlitz Beer costs no more?

Your dealer may prefer to furnish a beer that pays a little more profit; but does it pay you to permit it? Isn't pure beer—Schlitz Beer—worth asking for? *Ask for the Brewery Bottling.*

A FAMILY HUNT.

Hot Springs, Neb.

Editor RECREATION:

Seeing an article in one of last year's RECREATIONS, called "An Elk Hunt," near the Lamereux meadows, recalls a hunting trip which my parents, brothers and I made in '89. We lived in Fremont county, Wyoming, 25 miles Southwest of Lander, and had been accustomed to plenty of small game and small trout ever since settling there. We had always heard of the excellent hunting and fishing to be had at the head of the Sandies and determined to take a trip to this hunters' paradise, to find out for ourselves if the reports we had heard were true. Accordingly we started, the 3d day of August, prepared to spend a few days or weeks as might be necessary.

We took a spring wagon, a good team and 3 saddle horses. Our equipment consisted of a tent and camp outfit, a good supply of guns, ammunition and fishing tackle. We spent a week or more in reaching our destination, hunting and fishing here and there with little success. At last the trails got so scarce and narrow, the trees so thick and the bogs so numerous, that we were obliged to abandon our wagon and proceed by pack horse, which we did for a distance of 8 or 10 miles to a spot where we felt sure no other white person had ever been and where civilization would not interfere with our sport in any way. We camped about noon and after a hasty lunch prepared for a raid on the trout. All turned out, and although a shower came up during the afternoon and drove part of us to the shelter of the tent some stayed out. At night we had 87 fish, large and small. We were not hogs. Not one of those fish went to waste; neither did we make any donations, for our party consisted of 4 healthy boys and my father and mother and we had been camping out over a week.

Next morning at break of day my eldest brother, Bert, started out with a 45-70 rifle, and the avowed intention of getting an elk. Nothing was heard from him till the sun was just peeping over Fremont peak and we were sitting down to breakfast. Then a rifle shot broke the stillness. A few minutes later Bert came into camp holding up a pair of bloody hands. His one shot had been successful.

He had killed a fine 2-year old cow elk. My father started out after breakfast and returned before 10 o'clock with the information that he had killed another cow, having shot but once. The 2 animals were brought to camp and properly dressed for packing. Next morning we broke camp, for we had all the meat we wanted and there was nothing to remain for. We got both elk out safe. Reluctantly we went, for it certainly was a hunters' paradise.

E. T. Ussher.

TWO DOGS, A BOY AND A MINK.

When I was 9 years old I happened to hear my father say that mink skins were worth 50 cents to $2 each. Knowing mink tracks when I saw them and having seen them often, I at once determined to go into the fur business. I tried to get next to the old gentleman and jolly him into buying me some traps, only to be told that I had not gumption enough to catch a mink in an ordinary lifetime.

Thus rebuked I slipped to bed with my thinker working overtime. Before I slept I had matured a scheme. I had 2 rattling good rabbit dogs, and such was my high opinion of their ability and adaptability that I decided to use them as mink catchers.

Old Tip was a white, black and tan shepherd, and could whip any dog in the county. Spring was just a yellow mongrel, but not to be despised. If I wanted a chicken she would gather it in in a moment, and she could hold the biggest hog on the place until it got tired of squealing.

The next day I went out to begin my career as a trapper. It was no trouble to find a mink track, but as I whistled the dogs to it a rabbit popped out of a bush and off we all went in his wake. I spent an hour trying to punch bunny out from under a ledge of rock. Then I went back to my mink track. On the way we jumped another cottontail and away went the dogs again.

Thoroughly disgusted, I trailed my mink alone. The tracks wound in and out of the slough and finally led to higher ground and a hole. There was no track leading away from the hole. I considered that mink already mine and began calculating how many traps his pelt would buy.

When the dogs returned they nosed and dug furiously. I helped, and as the hole was shallow, we soon had the mink in close quarters. I was prying out a stone when the animal thrust his head out almost under my foot. Tip nailed him in a jiffy, getting a good grip on his neck. Spring sank his teeth in the poor mink's haunches. Then a tug of war ensued, both dogs pulling their hardest. I whooped them on. Already I possessed traps, skates, sled and unstinted candy.

Alas! my joy was premature. With a horrid rending sound my beautiful mink skin was torn asunder and the dogs fell back, each holding a shredded fragment. Tearfully I gathered up the remnants and trudged homeward, firmly convinced that for mink catching purposes one dog was better than 2. C. L. Hart, Humeston, Ia.

J. A. Steele's solution of the game protection problem, namely muzzle loading guns, is the correct one. I should like to shake hands with Mr. Steele. Game in this part of the State is about gone.

H. M. Putnam, Fredonia, N. Y.

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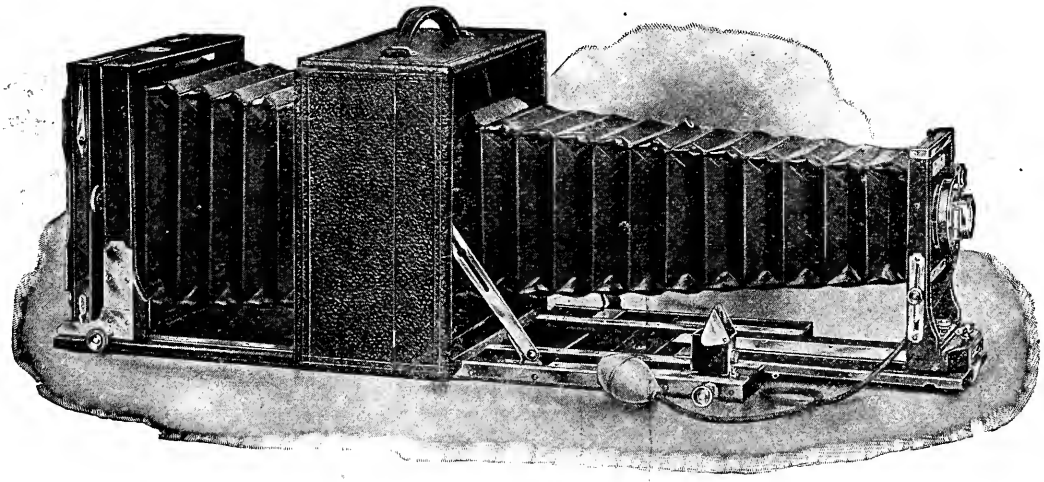

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AMATEUR PHOTOGRAPHY.

"For sport the lens is better than the gun."

I wish to make this department of the utmost use to amateurs. I shall, therefore, be glad to answer any questions and to print any items sent me by practical amateurs relating to their experience in photography.

MAKING THE NEGATIVE.

E. T. CALDWELL.

Without a good negative it is impossible to turn out a perfect picture. It is, then, important that amateurs fully understand this first step of the photographic art.

Most brands of dry plates will yield good negatives if properly handled. The exposure, of course, has much to do with the result. There is just that right amount of time to expose which gives clear, crisp plates. More time will give flatness; less, too thin and weak a negative. With rectilinear lenses working with stop f. 16, 1-5 second would be about the correct time. For f. 64, 2 seconds, in bright weather. The smaller the diaphragm the more sharpness and depth will be obtained.

Pyrogallic acid is the developing agent most generally used. Its tendency to stain is its one objectionable feature. I find metolhydrochinone gives a much better plate, bringing out detail which it would be impossible to secure with other developers in short exposures. It is cheap, keeps well, is free from stain and can also be used for bromide papers.

A simple form of developer is made as follows:

No. 1 Solution.

Pyrogallic acid	1 ounce.
Sulphite soda	6 ounces.
Hot water	16 ounces.

No. 2 Solution.

Water	16 ounces.
Carbonate soda	4 ounces.

For a normal developer take of No. 1, ½ ounce; of No. 2, ½ ounce; water, 3 ounces. This strength is suitable for most exposures. The No. 1 solution gives density; the No. 2, detail. More water retards development, and equal parts of one and 2 will quicken it. Heat will quicken and cold retard its action; 60 to 70 degrees is about the right temperature. Extreme heat will cause the gelatine film to soften and frill. In hot weather the developing tray may be placed in another containing ice. Developing solution may be used over and over, and when old gives more contrast. Keep the solution which is in use in one bottle and strengthen as required from one and 2.

Another good developer is made as follows:

1. Metol	1 ounce.
Sulphite soda	3 ounces.
Water	32 ounces.
2. Hydrochinone	1 ounce.
Sulphite soda	6 ounces.
Water	32 ounces.
3. Carbonate soda (sal soda)	4 ounces.
Water	16 ounces.

Take ½ of each and 3 ounces cold water for a normal developer. This will yield fine, soft negatives. More of No. 2 will give density and harshness. This is good also for all platino-bromide papers.

After the plate is exposed, prepare the hypo for fixing in one tray, in the dark room. Four ounces water to 4 ounces hypo is about right. Close door of dark room and by the light of the ruby lantern remove plate from holder. It is sometimes best to place the plate in cold water a few minutes before developing, making it less liable to spot. Lay the plate in the tray, pour the developer over it, and gently rock the tray. In a few seconds the lighter portion of the image will appear if correctly exposed. It is best not to have the solution work too fast. Keep it well under control, bringing the picture out gradually. Continue until the picture begins to fade from its first bright appearance. Rinse in cold water and place in hypo; leave until the white is entirely eaten away; wash ½ hour, changing the water 2 or 3 times. Then place in a rack to dry, preferably in a draught of cold, dry air.

Where a plate is much under timed placing it in a solution of soda 5 minutes before developing and then proceeding as usual will bring out detail which can not be obtained otherwise. The solution should be prepared as follows: Saturated solution of carbonate soda, ½ ounce; water, 6 ounces. Begin development of greatly undertimed plates with a weak solution, gradually increasing the strength of the developer. If over timed, add bromide to the weak developer. Negatives too thin and faint may be intensified; and those too dense and hard, reduced with the following: Ferrocyanide of potassium, one ounce; water, 16 ounces. To reduce, immerse the plate a few minutes in a hypo solution of one ounce to a pint of water, adding the ferrocyanide a little at a time. The more added the more the plate will be reduced. Wash well and dry.

Orthochromatic plates are more sensitive to orange, yellow and green. The finer details of foliage will be retained by their use, and a distant mountain against a sky will show better. They are developed the same as other plates. A negative of good density prints out best. A flat, poor negative will not yield a good print by any process.

Plates may be reduced locally with a camel's hair brush wet in the reducing solution.

WHY USE RAPID PLATES?

By using slow plates nearly all photographic troubles would vanish into thin air. The slow plate gives a greater latitude in the exposure. Every plate has its minimum and maximum exposure for a good negative to result, the midway between minimum and maximum giving in all cases the best results, provided always development is properly carried out. In the slow brands of plates there is far greater range between the 2 points mentioned than there is in the ultra rapid ones; hence the slower ones give a far greater latitude. For this reason exposure with slow plates does not need to be so exact as with the more rapid ones.

The ultra rapid series of plates require far greater care in handling at all stages, being more susceptible to fog, and for this reason one's dark room lamp must be such that it gives a ruby light of a safe nature. Such a ruby light is often trying to the eyes, and more than this, one is not able to watch development so closely as if a better light was employed. Often one is not able, from the use of too dim a light, to see what is going on in time to check it. Again, fast plates, despite what is said to the contrary, are more liable to chemical fog early in development, and are often, in any but experienced hands, incapable of rendering the half tones in a proper manner. In fact, it will often be found that a maker's rapid plates are inferior in quality to his slow ones.

By using a slow plate a brighter light can be used in the dark room. For this reason the development proceedings can be more plainly seen and regulated. By giving a somewhat full exposure a negative can be produced containing a full range of half tones, crisp and bright prints being the result, as against the flat and foggy prints often seen or the soot and whitewash prints.

The greatest danger when using an ultra rapid plate is that of over exposure, which flashes up at once, with the result that most amateurs get frightened, and throw the negative into the fixing bath before it is time; result, a flat, unprintable negative.

Hence, use for general work, except in extreme cases, the slow or ordinary brand of plates. Give an exposure as nearly correct as possible and use a normal developer. —Photo Chronicle.

HOW TO USE CYKO PAPER.

I was much interested in what J. C. C. says in May RECREATION about Cyko paper. A year ago I was in Idaho and sent to a Chicago concern for some Cyko paper and Cyko developer. The paper worked nicely until it reached the washing stage; then trouble came in the shape of blisters. In order to save any prints I had to reduce the time of washing to ¼ of that specified in the directions. I sent a blistered print to my dealer and asked advice. Another lot of paper was sent me, and I was told that the first batch might have been an old emulsion. The new paper was worse than the old, and began to blister the moment it was put in water. However, the few prints I succeeded in saving were beautiful. Should be glad to learn more about this paper from those who have used it.

J. E. Bates, Spokane, Wash.

I referred the foregoing letter to an expert photographer, who replies as follows:

The blistering of prints made on Cyko paper is most frequently caused by having the printing frame too close to the light while exposing, thus allowing the negative and the paper to become heated. To obtain the best results with Cyko paper this should be avoided, and special care should be taken to keep the fixing bath acid, as with each sheet placed in the fixing bath a certain quantity of alkali is carried into the bath from the developer. As the fixing bath is inexpensive it is advisable to procure a new bath when the one in use shows signs of deterioration. The Anthony & Scovill Company, 122-124 Fifth avenue, New York, who are the general agents for this paper, have prepared a special manual for the manipulation of Cyko paper, which they will forward to any person asking for it. This book is complete, and contains many valuable hints on the manipulation of developing papers.

TO CLEAN LENSES.

Kindly advise me the best method and material for cleaning lenses.

M. P. Staulcup, Meriden, Conn.

ANSWER.

For removing dust and other substances from the surfaces of lenses there is absolutely nothing which equals an old, worn linen pocket handkerchief or an old piece of fine cotton cloth which is nearly worn out from washing and use. The glass of which lenses are made is usually somewhat softer than window glass, or glass used for glass dishes and similar articles, consequently it requires more care in cleaning, lest the substance in the dust or other material collected on the lens surfaces should cause scratches by being rubbed across it. For ordinary cleaning the lens surfaces may be dusted with rag first, then breathed gently on and wiped gently with cloth, taking care to have an abundance of the cloth between the finger and the lens, so as not to press too hard on

the surface. If dirt is not removed by this means, a cloth may be slightly moistened and the surface gently wiped with it afterward being dried thoroughly with a dry portion of the cloth. Continued gentle wiping and polishing of the surfaces with the cloth will generally remove all traces of materials which may have collected. If neither the moisture nor the wiping will remove substances the chances are that they are of an oily or resinous nature. In that case polish the surface of the lens with a cloth slightly moistened with pure alcohol, taking care not to allow it to touch the mount. After wiping a few times polish thoroughly with a dry portion of the cloth. Any lens is improved by being frequently polished with a dry cloth, first breathing on the surface of the lens. A lens may deteriorate considerably in speed through the collection of a fine film of dust which is scarcely noticeable.—EDITOR.

DUE TO EXPOSURE.

What dry plates are best for photographing mountain scenery? How are non-halation plates for such work? What causes the grayish and spotted whites on Velox gloss paper? I use M. I. developer and plenty of bromide of potassium, but can not get good effects. I used same developer on carbon Velox and it worked all right.

What will remove hypo stains from negatives which have been improperly washed?

I have not missed a copy of your valuable magazine in 3 years. I take great pleasure in the pages devoted to photography and guns and ammunition, as they give a great deal of valuable information.

R. Ralph Garinger, Pueblo, Colo.

ANSWER.

Each plate manufacturer would claim his plate to be the best. A non-halation plate has nothing of advantage except where there is halation to avoid, which would be liable to occur in taking a mountain scene. The negative being good, this difficulty is due either to over exposure and under development or else under exposure and forced development. The fact that you had good results on another trial would indicate that the difficulty is due to exposure.

I do not consider it practical to remove hypo stains from the negative, and advise thorough washing so there will be no stains.—EDITOR.

A CHEAP PRINTING PROCESS.

The photographer who desires to turn out prints on an economical basis has plenty of methods among which to make his selection. Generally speaking, those which employ bichromate salts will be found the most economical. Among these is the process recently put forward employing mercuric nitrate. It is carried out by immersing ordinary paper in a 10 per cent solution of bichromate 5 minutes, and drying it in the dark. When dry, it is ready for printing, which must be done in a good light, and which results in a visible image of a reddish color, but not strong. When the shadows are distinctly visible, the printing is finished, and the paper must be washed in water until the whites are clear, after which it should be immersed in a bath made by dissolving 80 grains of mercuric nitrate and 20 grains of potassium bichromate in an ounce of water. This solution should be made some hours before use, and allowed to stand until required, when it may be filtered, and is then ready. The resulting liquid, which is green, will gradually turn the picture to a pleasant red tone, after which it may be washed and dried. To obtain a brown tone, treat the print with 60 minims of strong ammonia to an ounce of water, washing well between the mercury bath and that containing the ammonia. These prints can be toned in ordinary gold toning baths, in which they gradually turn to purple.—Exchange.

TO INTENSIFY NEGATIVES.

In January, 1901, RECREATION, you published a formula for intensifying negatives. My druggist has tried several times to compound it for me, but can not mix the nitrate of silver and cyanide of potash in in the quantity named. Will you kindly tell me how it can be done?

James H. Miller, Lowville, N. Y.

If the silver is good it will dissolve in one dram of water. However, you can use 90 minims or more if necessary, but enough must be left for the cyanide.

The Monckhoven formula is the best intensifying material on earth. It develops negatives and works wonders with flat, under developed, over exposed negatives.

A. Distilled water..... 1 ounce.
Bromode of potash.....10 grains.
Bichloride of Mercury.....10 grains.
B. Distilled water..... 1 ounce.
Nitrate of silver.....10 grains.
Cyanide of potash C. P.....10 grains.

danger that my scholars will ever be game

In making B. dissolve the silver in a dram of the water, the cyanide in the remaining 7 drams. Mix, and when settled and clear it is ready to use. Bleach the plate in A. till white. The longer it bleaches the more intensity will ensue. Rinse well and blacken in B. Work in daylight, but not near a window. Both solutions are poisonous.—EDITOR.

SNAP SHOTS.

I have had poor luck in taking pictures of water. What are the proper stop and time in taking a picture of water in bright sunlight? In developing plates of this kind should they be carried in the developer until the yellow disappears from the plate, the same as other plates? I use Eastman's pyro in glass tubes for all kinds of plates. Will your answer for this apply to taking cloud pictures? If not, please explain, as I have failed in that kind of work. In using a ray filter, how much longer should the exposure be than without it?

ANSWER.

Use a small stop and rapid exposure, 1-100 second. Do not carry the development so far that the delicate half-tones are lost.

This advice applies also to cloud work.

In using a ray filter allow an exposure 2 to 6 times longer than without it, depending on the color of the filter.—EDITOR.

I have taken several pictures indoors of late and developed some until the image seemed to come out as far as necessary, but when I tried to fix the plate the image went off as the plate cleared, ti'' by the time the plate was clear the image had almost disappeared. I have never had anything of the kind occur with plates exposed outdoors. Please let me know the cause and the remedy. I use pyro developer.

C. E. Wilson, Mt. Carbon, Colo.

ANSWER.

You probably do not carry your plate far enough in the developer.

For interior work, try non-halation plates and a full exposure, carrying development farther than with ordinary plates. —EDITOR.

What will prevent pyro from staining the negative after fixing with plain hypo? Is pyro the best developer for clouds?

John R. Boulle, City Island, New York.

ANSWER.

Use fresh pyro developer and rinse plate well before fixing. Alum will lighten the stain.

Many expert photographers recommend pyro as the best developer, while others advise the use of different developers.—EDITOR.

To reproduce a negative it is not necessary to make a positive. Put negative and a fresh plate in the printing frame, expose to daylight, say 5 seconds and the result will be a negative from a negative, due to the great over exposure. It often happens, too, that a far better negative can be thus produced than the original by modifying the developer to some extent.—Exchange.

Dextrine makes an excellent mountant, sticky and not difficult to mix. Liesegang recommends 2 ounces of water, 20 grains nitrate of calcium and 80 grains of dextrine. Another authority gives equal parts alcohol and water, heated in a water bath, and dextrine stirred in till the consistency suits. Dextrine is quoted at 10 to 15 cents a pound.—The Photo-American.

Will you kindly inform me, through RECREATION, what camera you think is the best for a beginner?

A. M. P., Clifton, N. J.

Will some reader of RECREATION please answer?—EDITOR.

I have received the Laughlin fountain pen you sent me as a premium and am more than delighted with it. Please accept my sincere thanks. I can not tell you how much I like RECREATION. Five dollars would be a cheap price for the enjoyment I get out of a year's numbers. I am a school teacher and spend a portion of my summer vacation each year in a hunting and fishing trip. During the remainder of the year I have to content myself with what is nearly as good as such a trip, namely, the monthly appearance of RECREATION. Each new number is like a camping trip in some new region. I take my copies to the school house and allow my pupils to take them by turns for a few days. They are delighted with them, and I do not think there is any danger that my scholars will ever be game or fish hogs.

I am an amateur photographer and get much help from the photographic department of your magazine. When any new trouble arises I at once consult my back numbers and nearly always find a cure.

Geo. L. West, Redwood, N. Y.

Are you beginning to think what you can give your friends for Christmas presents? What could be more desirable than a yearly subscription to RECREATION? It is one of the most practicable and useful presents you could possibly give a man or boy who is interested in nature study, fishing, hunting, or amateur photography.

All boys instinctively love the woods. RECREATION teaches them to love and to study the birds and the animals to be found there. If you would have your son, your brother, your husband, or your sweetheart interested in nature let him read RECREATION. It costs only $1 a year and would make him happy 12 times a year.

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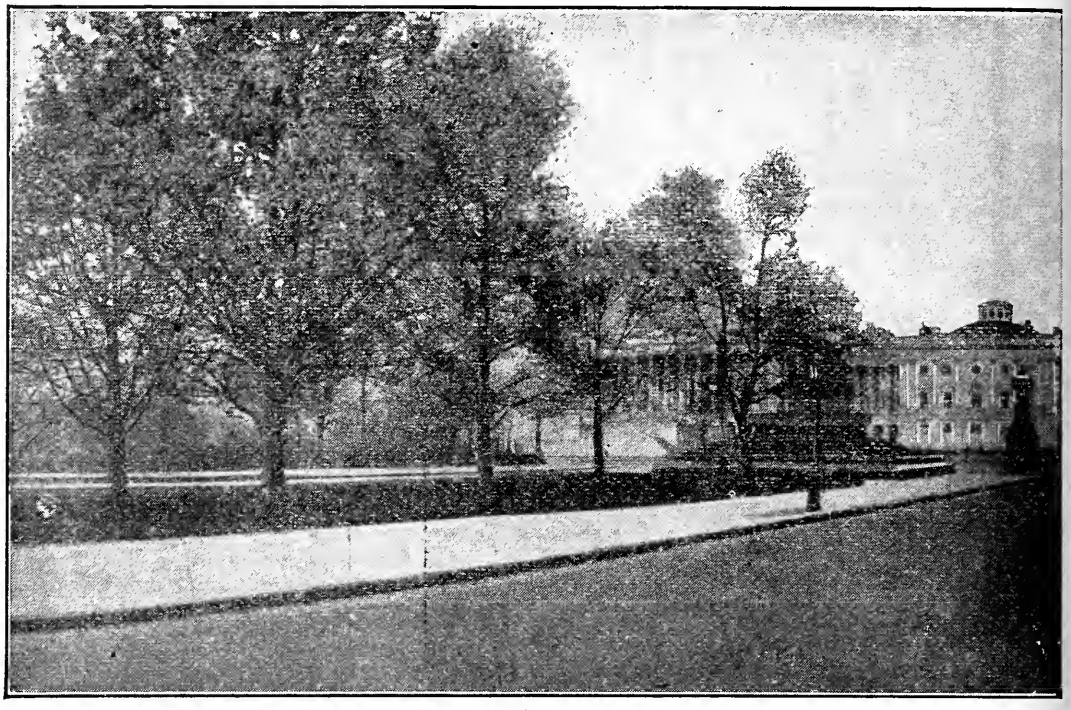

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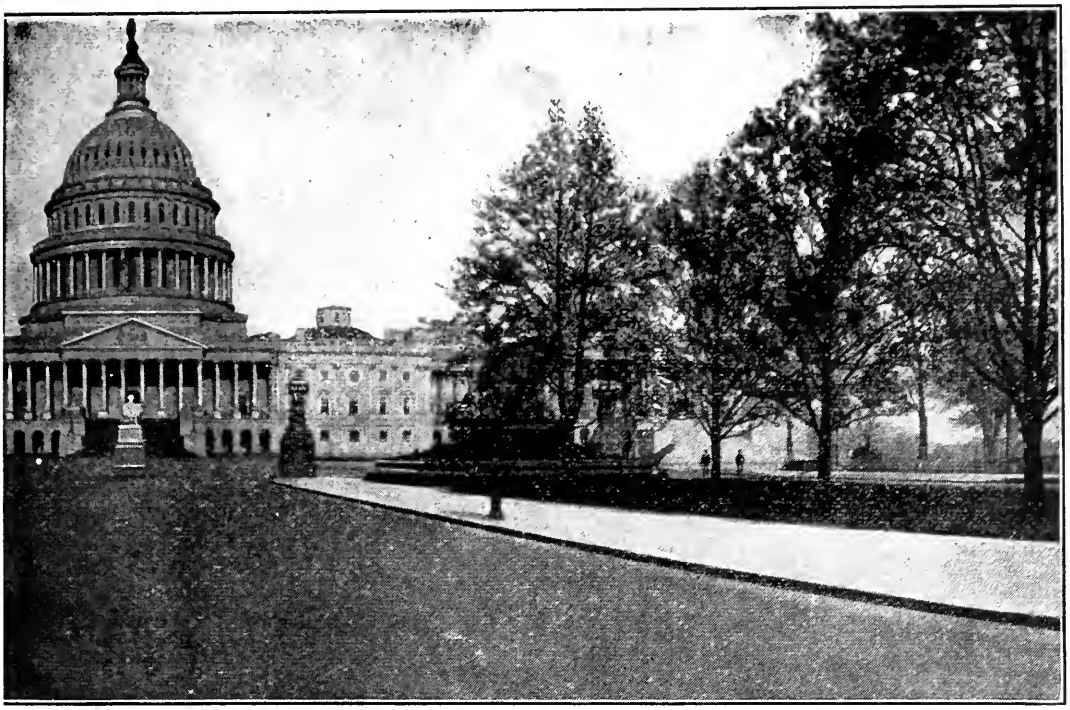

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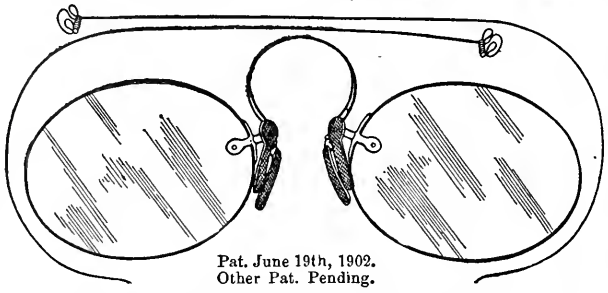

Pat. June 19th, 1902.
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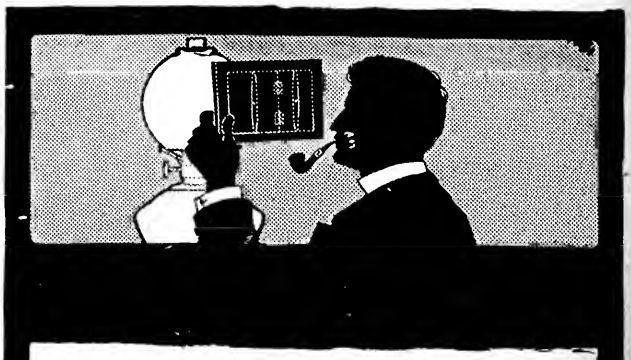

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Free: To anyone sending me $3 for three subscriptions to RECREATION I will send a pair of pretty Flying Squirrels. For seven subscriptions I will give a fine pair of Fox Squirrels. E. F. Pope, Colmesneil, Texas.

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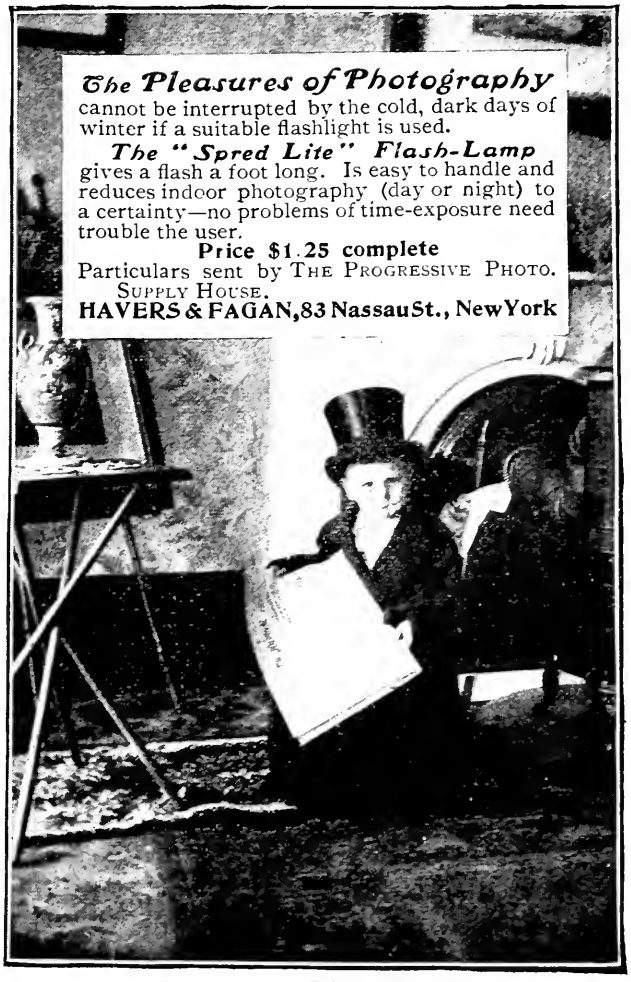
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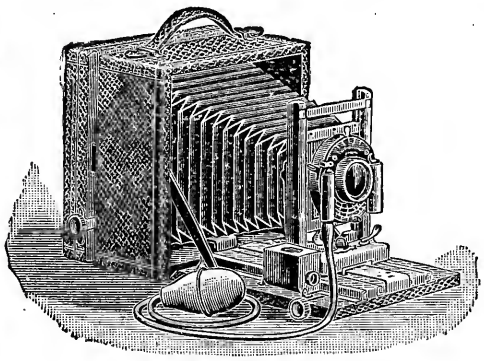

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or other work needing bellows capacity, and also with wide-angle lenses for interiors and kindred subjects.

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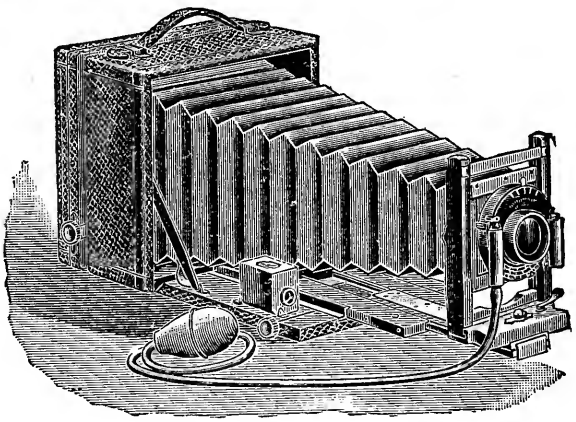
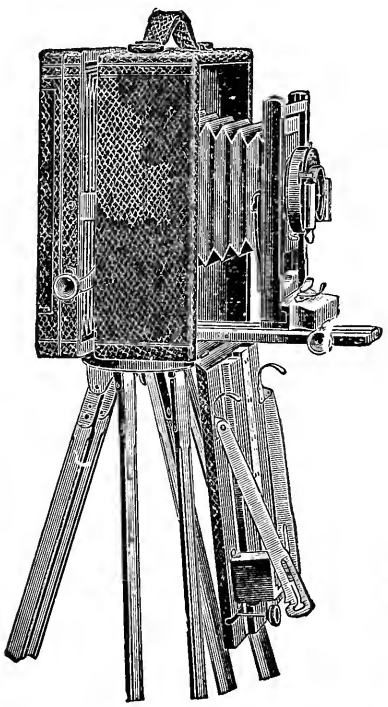
Every adjustment is a marvel of simplicity and mechanical ingenuity, and many of them are found exclusively on the Korona.

Note our patent auxiliary bed for use with wide-angle lenses, and compare it with





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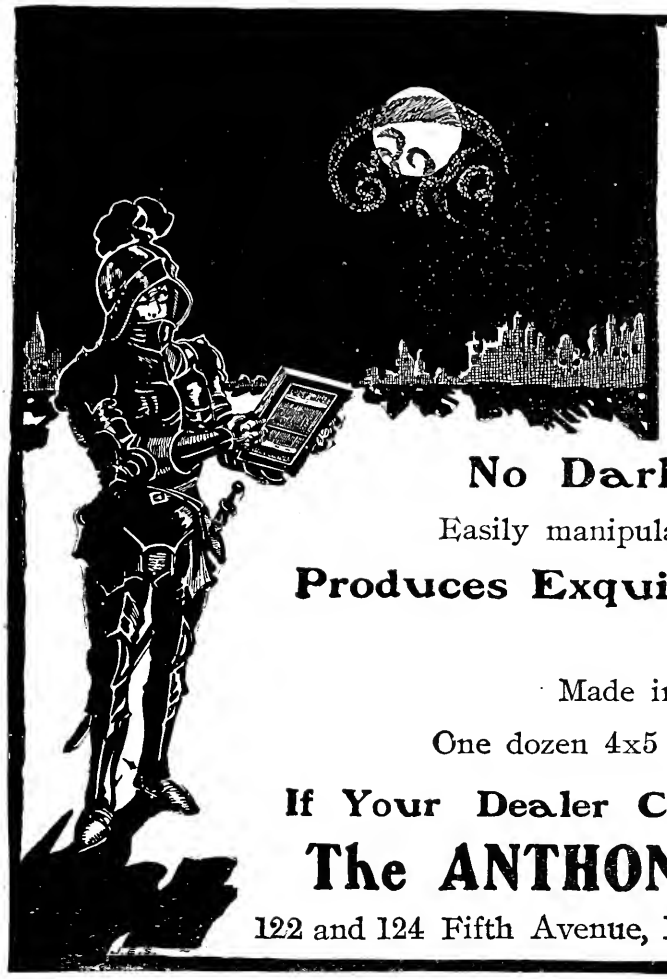

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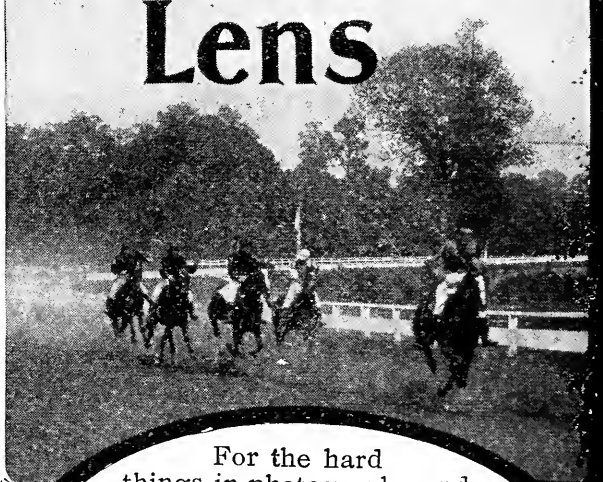

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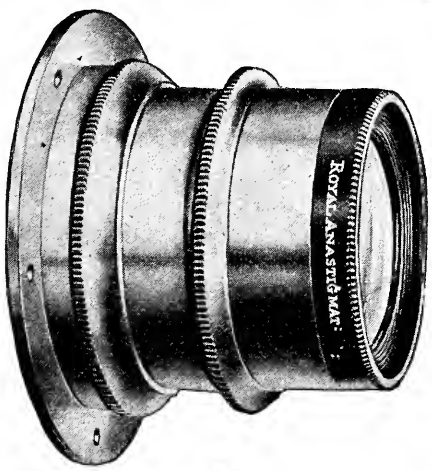

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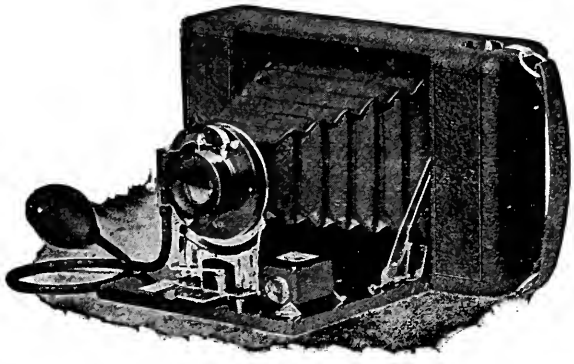

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MEXICAN ALLIGATORS.

Mexcallitan, Mex.

Editor RECREATION:

For the study of alligator nature this locality is unrivaled. Here he is everywhere in evidence, acting his will with little fear of man. The alligator is an animal of considerable intelligence. I have seen one head off a large fish in shallow water, corner and catch him. Step out of a canoe and hide on the bank, and if there is a 'gator in the vicinity he will swim slowly by, making observations. If he can see you at all he will stop and size you up, as if wishing to know what you are about.

They are not found hidden away in dark recesses, as I had expected. That may be the case where they have been much hunted and are shy. Here there is no other animal that so loves the broad daylight and warm sunshine. Three miles away is a favorite sunning place, where, on a bank, 100 or so can be found any bright day. If a canoe draws near they slide into the water one by one and lie with only the head showing. Many will allow the boat to get within 20 feet before diving. They dive by a backward jerk, the snout being last to disappear.

Having been requested to send 3 hides to San Francisco I went to this sunning place, landed, and hid among some bushes. In a few minutes a big 'gator floated up, blowing out his breath with a noise like a suction pump short of water. He crawled out and prepared to take a nap within 20 feet of me. A bullet a little below and back of the eye, and a cast of the harpoon to keep him from rolling into deep water, and he was mine. His struggles lasted but a few minutes. I left him as he lay for a decoy, and my order for "one large and 2 medium sized hides," was soon filled.

The natives surprised me by saying the alligator has no tongue. It is true he has none in the usual place for that organ; but I found what seems a tongue under the floor of the mouth. The animal has great trouble in getting a morsel in just the right position to swallow, managing it by throwing his head back a number of times, with his jaws wide open.

The 'gator has a peculiar odor, which at a distance might lead one to suppose him a member of genteel society; at close range, however, you know him for a rank pretender. A Mexican lady from the tableland told me she used perfume once after coming here, and only once. On that occasion a number of persons asked her, "What smells of alligator?"

'Gators 12 or 13 feet long are considered large in this section. They swim mostly by a snakelike motion of the tail. In 2 years spent here I have known of but one man being bitten by n alligator. He, poor fellow, after 5 weeks in bed, had still 5 holes in his thigh, each large enough to admit the index finger to the first joint.

Ed. M. Williams.

A GAMEY HOG.

G. W. SMITH.

During the fall of 1893 I was station agent at a little city in Southern Kansas, near the Indian Territory line. Game was abundant, and being a lover of rod and gun, I soon made the acquaintance of a cattleman whom I will call Ed Hewins. He owned a ranch of 2,000 acres, bountifully stocked with quails, prairie chickens, rabbits and squirrels. Mr. Hewins gave me leave to hunt and fish on his land, and I had many a day of sport shooting quails, over my old pointer Sport.

One afternoon in November, I took my favorite 12 bore, slipped a few quail loads into my pocket, and, with a younger brother and my dog, set out in quest of game. We had gone perhaps a mile from the station, when Sport came to a stiff point, near a hazel thicket. Told to flush, he raised a covey of quails, and I succeeded in grassing one with each barrel. The others flew some 300 yards and scattered in the open field. We had some excellent sport, and, after finding I had birds enough for our dinner, and but one remaining shell, we started to return home.

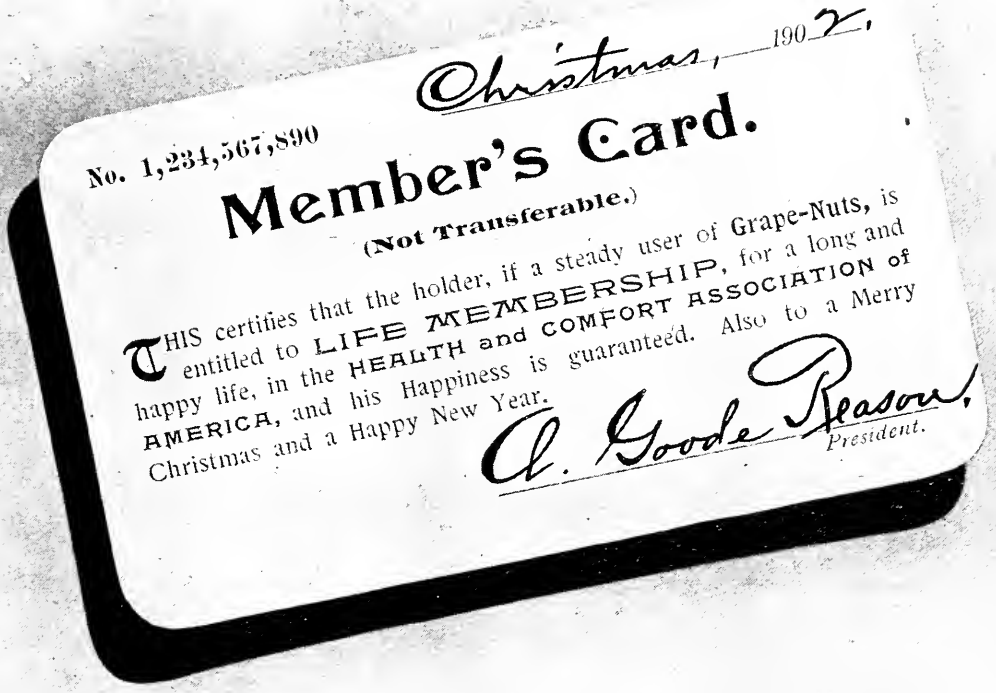
When we had gone a short distance, I noticed Sport strike a scent, and with the wind in his favor proceed cautiously up a draw to the crest of the ridge. There, where some passing wagon had dropped a bunch of hay, he came to a staunch point. Thinking it was merely a cottontail, I stepped in ahead of the dog and gave the bunch a violent kick. To my utter amazement I was confronted by a wild boar, which proceeded to make things interesting for the next few moments.

With open mouth, catlike eyes glistening like balls of fire, tusks which seemed to me as large as an elephant's, he made a vicious charge. I happily avoided this, only to be confronted with another attack more determined than the first. Seeing it was to be a fight to the finish, I side-stepped and bringing the muzzle of my gun just behind his shoulder, fired. Some pellets of the charge of No. 8 shot reached his spine, with the effect of paralyzing his hind quarters. There was plenty of fight left in him, however, and as I had no more ammunition, I beat a retreat. At the station I obtained a rifle, and returning, despatched the boar with it.

There are probably more deer in Connecticut to-day than at any previous time within 150 years. They are seen on railroad tracks, in fields and gardens, and even feeding with domestic cattle. Where they all come from, and what is drawing or sending them here, is not clear. They are not only seen in most unexpected places, but appear singularly free from fear of human beings. They are seen, too, in nearly all parts of the State.—Hartford Times.

Mr. Marryat.—I see old Roxley has left an estate worth $2,000,000. Wouldn't you like to be his widow? Mrs. Marryat (ambiguously)—No, dear; I'd rather be yours. —Philadelphia Press.

The Gift of Gifts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A. Goode Reason,
President.

There is a Reason

LONDON LANCET, the great medical authority, says of **Grape-Nuts:** "The grains are brown and crisp, with a pleasant taste. . . . . The preparatory process undoubtedly converts the food constituents into a much more digestible condition than in the raw cereal. . . . . The features worthy of note are the excellent proportion of proteid, mineral matters and soluble carbohydrates per cent. Our analysis shows that it is a NUTRITIVE OF A HIGH ORDER, since it contains the CONSTITUENTS OF A COMPLETE FOOD and in an EASILY ASSIMILABLE STATE."

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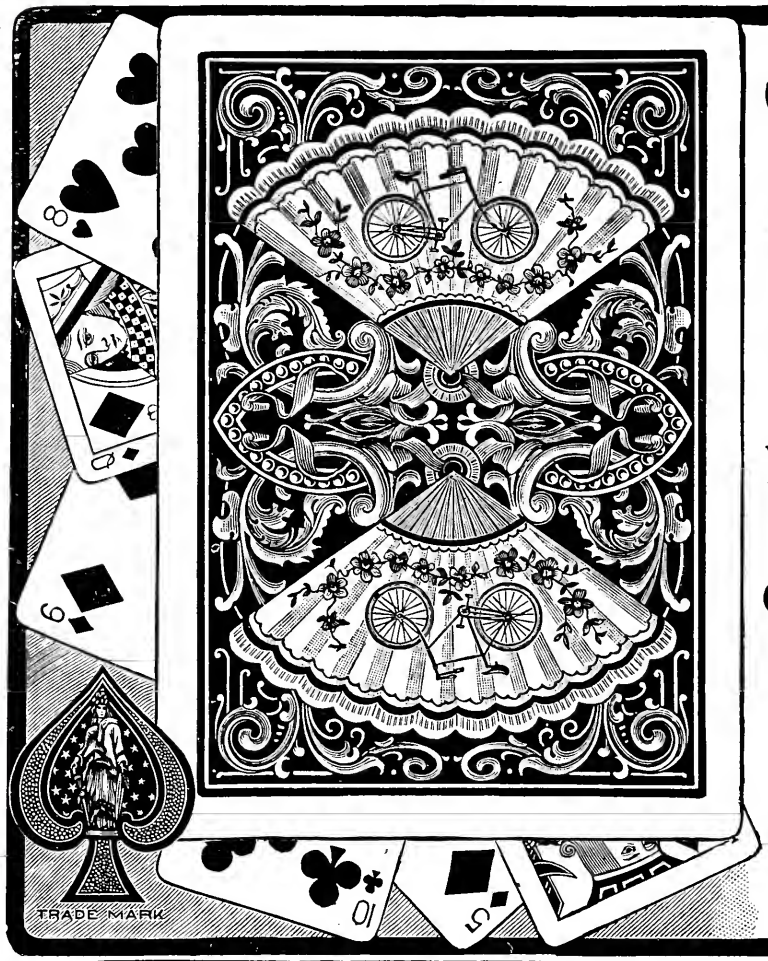
Grape-Nuts



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Bicycle cards wear well. Popular price. 29 backs. Back shown is "New Fan." Order by name. Sold by dealers.

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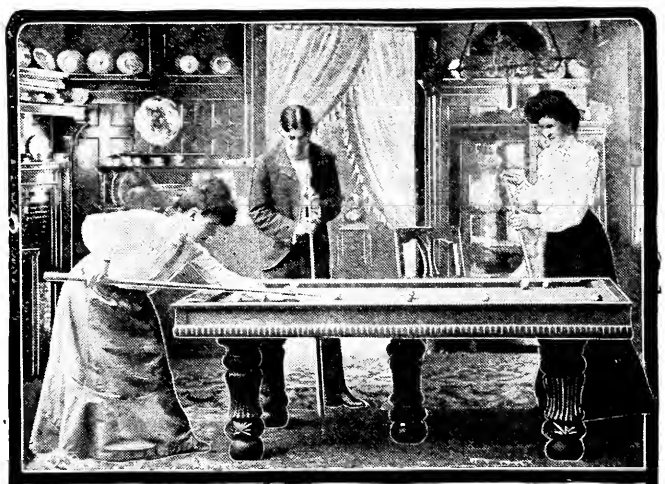

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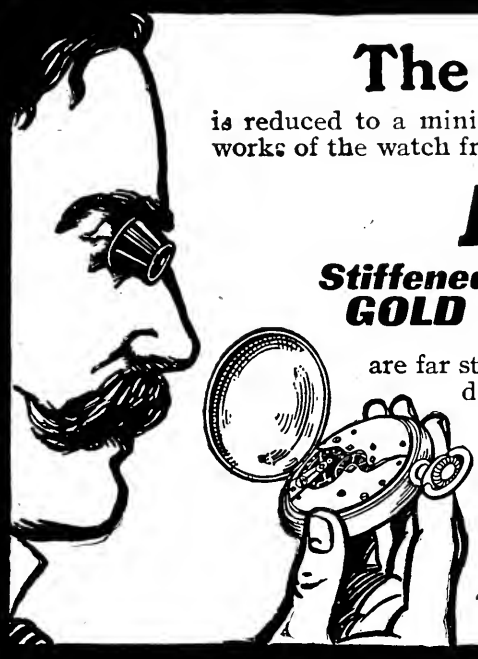

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FROM NORTON SOUND.

There is, or perhaps I should say has been, gold in this part of Alaska. I know 2 young fellows who rocked out $4,480 in about 15 days on the beach. Another friend took out $16 from a bucketful of beach sand. However, I do not advise anyone to come here next year expecting to find gold on the beach. It has been thoroughly turned over, and besides there will undoubtedly be a great rush of men here next year. The claims on the creeks are only worked from the middle of June until the latter part of September.

There is not much to interest a sportsman in this part of Alaska or on Kotzebue sound, where I spent a year before coming here. On one occasion we located a band of mountain sheep in a rugged range of mountains at the head of the Kogoluktuk. However, we only found the sheep the day before we were to start on our return trip, and could not spend any time hunting them. We saw many signs of otters and wolverines, but did not get sight of any. We had to travel on skis, or snowshoes. The skis made much a grating on the crisp snow that a wolverine could hear us long before we could see him.

About the only shooting we had except the ducks and geese in summer were ptarmigans. In the early fall the old cock ptarmigans are as gamy as could be wished. When flushed they start up with a cackle that is rather startling. One does not like to shoot ducks in the breeding season, but in Kotzebue it was duck or no meat, and there was so much scurvy in the country that fresh meat was almost a necessity when we could get it.

E. L. Stevenson, Cape Nome, Alaska.

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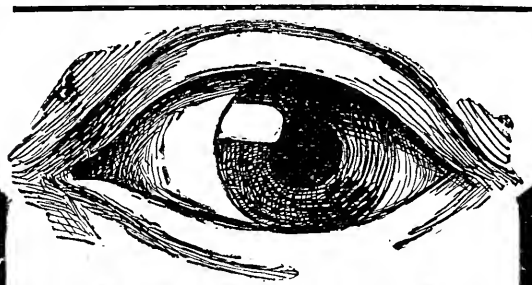

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FRANK CORLIS.

My dad was one of the old time sportsmen and had a muzzle loading rifle which he prized highly. The clover blossoms were nicely headed when dad sent an invitation to some old friends to join him in a grand woodchuck hunt. Colonel Brown, Mr. Evans and Judge Green came.

While they were out on the veranda waiting for dinner and discussing the good qualities of their respective guns, I slipped around to the barn and took down an old woodchuck skin that had been tacked there a long time. Having stuffed it roughly with straw, I took it up on the hill just in sight of the house and tied it with a string to a fence stake so the wind would move it around just above the ground.

By that time they were at dinner. I rushed into the house and said, "Dad, it 'peers like there is a chuck up by the old stump lot." Dad went out on the stoop and put up his hands for a telescope.

"By gravy," said he, "there is a shore enough chuck. I can see him move."

Each of the party tried to be very polite, and urged the others to shoot first. I think each was afraid of missing, and that the other would have the laugh on him. Mr. Evans shot first. He claimed the woodchuck moved just as he pulled. A clean miss any way. Next came Dad's turn with his old 14-pounder. The dirt flew 10 rods this side the chuck. You should have seen Dad screw up that rear sight. He ran it high enough to shoot over the hill. Next the Colonel leveled his Winchester through the pines and unhitched it.

I saw straw fly out of the skin and knew, of course, they must soon catch on. I separated from their company and started for the barn. They fired 2 or 3 rounds more and then went up the hill to see what they had been shooting at. When they came by the barn I peeked through a crack. They looked like a lot of cows turned out of a turnip field. I sneaked up the back stairs to bed that night; I didn't want to see Dad for anything particular.

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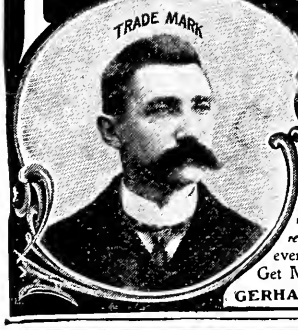

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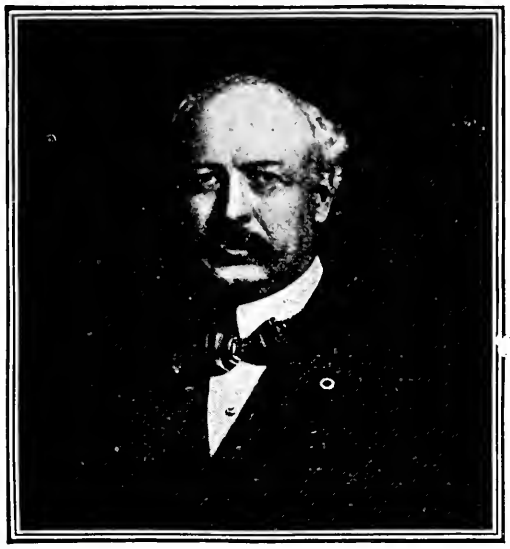

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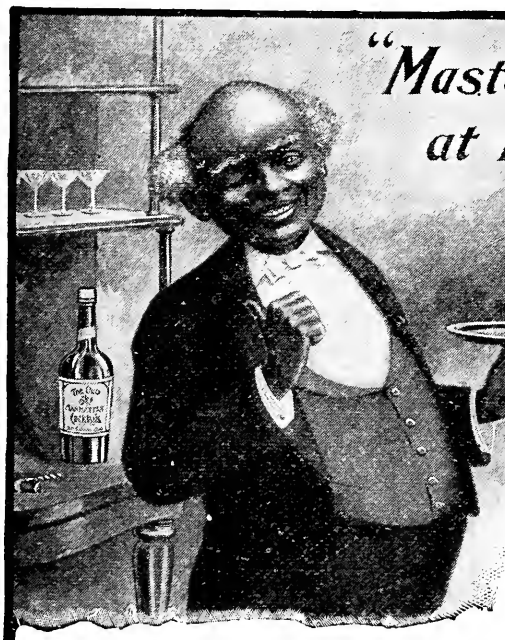

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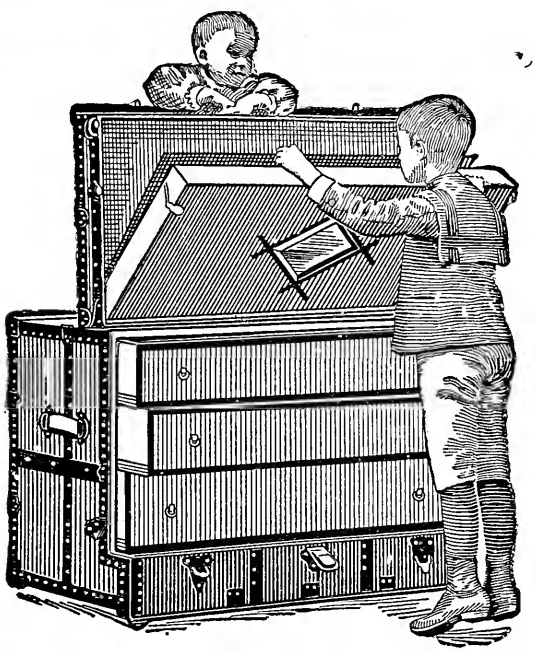

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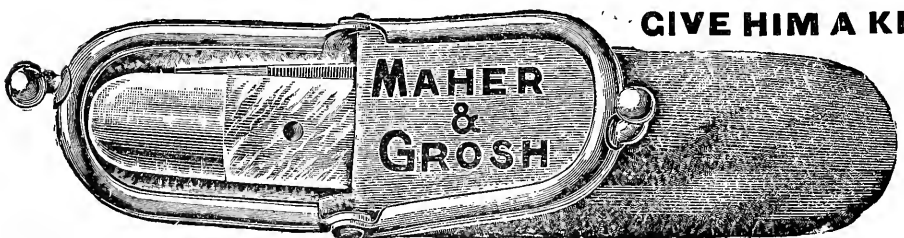

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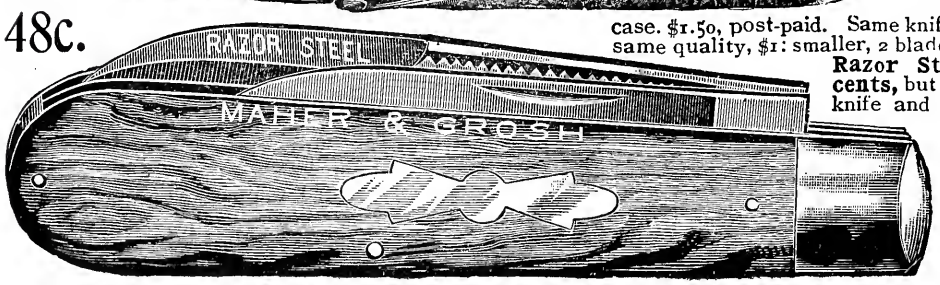


MAHER & GROSH CO.,
74 A Street, Toledo, Ohio.

$1,000 REWARD

Resolution passed at a recent meeting of the American Hair Mattress Renovators:

Whereas, *a large and steadily increasing number of our patrons are discarding Hair Mattresses in favor of the Ostermoor Patent Elastic Felt Mattress, in spite of our combined efforts against them, therefore, be it*

Resolved, *that a reward of one thousand dollars ($1,000.00) be paid by this society to any member finding an argument that will discourage their popularity and prevent their continued sale.*

The Ostermoor Patent Elastic Felt Mattress, $15.

Express Charges Prepaid Anywhere

(Smaller sizes at smaller prices)

consists of airy, interlacing, fibrous sheets of snowy whiteness and great elasticity; closed in the tick by hand—constructed, not stuffed. Softer than hair—never mats or packs as hair does—and never needs remaking and is absolutely vermin-proof. In all respects practically un-wear-out-able, retaining its shape and elasticity under all sorts of conditions and hard usage.

SLEEP ON IT THIRTY NIGHTS and if it is not even all you have *hoped for*, if you don't believe it to be the equal in cleanliness, durability and comfort of any $50 hair mattress ever made, you can get your money back by return mail.

Send For Our Handsome Book, "The Test of Time."

which costs us 25 cents but *costs you nothing* but the trouble to send for it. We don't ask you to buy, but we want you *to know*. You will be surprised at the beauty of this 80-page book.

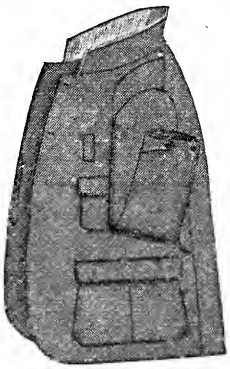
REMEMBER:—*Ostermoor Mattresses are not for sale by stores. Must be bought direct of us. Our name and guarantee on every mattress. Write us to-day without fail.*

OSTERMOOR & CO., 114 Elizabeth Street, New York

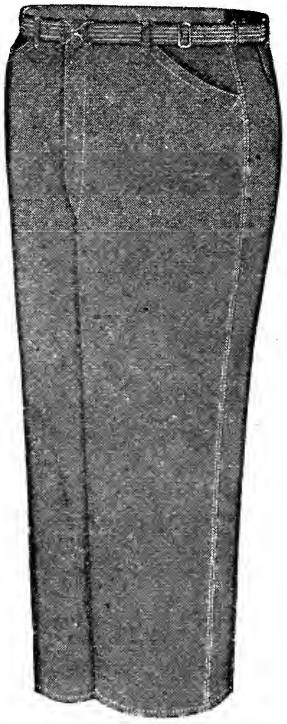
We have cushioned 25,000 churches. Send for our book "Church Cushions."

CONLEY MFG. CO., St. Joseph, Missouri Notice our Prices

Conley Combination Coat, Vest and Duck Blind, $5



Ordinary Field Coat, Corduroy Collar and Cuffs $2.75



Field Trousers, Adjustable Belt, $1.50
Coat and Pants, $4

All our garments are now made of English Khaki Cloth same as adopted by the U. S. Government for Army Uniform. Light green color. Very light weight. Noiseless in the woods. Send for booklet and measurement blanks. Mention RECREATION.

FOR HOLIDAY PRESENTS

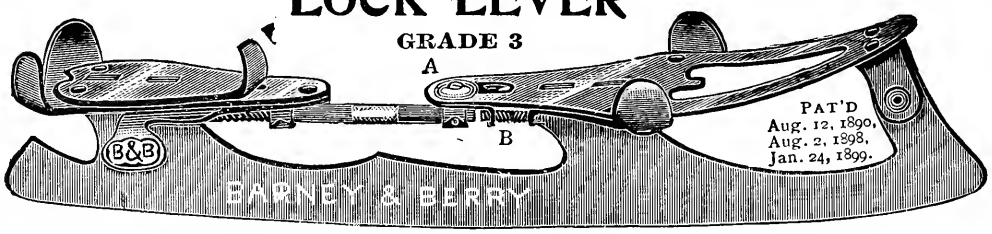
For your best girl, or your brother, or for some other girl's brother, or for any one you love, and who is fond of skating

For 5 yearly subscriptions to RECREATION, I will send you

A pair of Lock Lever Skates or A pair of Ladies' Lock Lever Skates

Grade 3, make by Barney & Berry, Springfield, Mass.

LOCK LEVER



As every skater knows, these are the best skates made in the world
The winter season is approaching, and you could scarcely select a more appropriate present

For a man or a woman, a boy or a girl

than a pair of these high-grade skates. Only a limited stock on hand, and when these are gone this offer will be withdrawn.

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of Arizona Territory

Moki Indian Snake Dancers.

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The Reason the LUTHER HAND-MADE GLOVE will not rip

Machine sewing cuts itself

Hand sewing cannot.

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A Practical Hunting and Driving Glove

Made for practical, comfortable, durability. No Oil. No Odor. No Animal Glue. Practically seamless. Cannot Rip. Unaffected by moisture of any kind. If soiled, may be washed with soap and hot water, without injury. The Luther Fastener is adjustable, fits any wrist and cannot get out of order. Illustrated booklet, samples and self measurement rule on application.

If you prefer to buy through your dealer, send us his

No. 308 Driving Glove postpaid anywhere **$1.50**, made to measure **$2**
No. 320 Gauntlet, " " **2.50**, " " **3**

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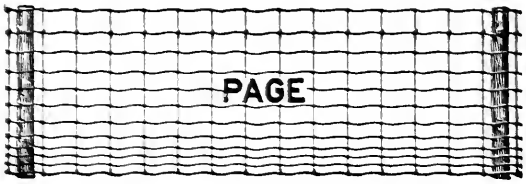

that among all our competitors in the woven wire fence business, not one of them ever even claims that their fence is BETTER than the PAGE?

All of them say theirs is "Just as good as the Page," and still they don't even pretend that the wire they use is anything better than common Bessemer steel wire.

Now, Mr. President, My Lords and Gentlemen, "Page-Wire" has twice the breaking strength of common Bessemer fence wire, and no fence can be "Just as good as the Page" if the wire is only one-half as strong. One trial will prove our assertion.

PAGE WOVEN WIRE FENCE COMPANY
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CURRITUCK SOUND, N. C., ALBEMARLE SOUND, N. C., PAMLICO SOUND, N. C., and ROANOKE ISLAND, N. C., and all points in VIRGINIA and the CAROLINAS

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Good quality Rolled Sole Ribbed Rubbers, with best oil grain leather tops, sewed with silk and having rawhide laces.

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BANNER RUBBER COAT, Pattern 28. Absolutely Waterproof. $5.00, Express paid in U.S. Write for Catalogue. Everything in Rubber.

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Send me 40 yearly subscriptions to RECREATION and I will send you

No. 1 Double Barrel Hammerless, Breech Loading Gun

Made by the Ithaca Gun Co. and Listed at $40

I have contracted for 20 of these guns at a price which enables me to offer them as above, and they will doubtless all be taken within the next 3 months.

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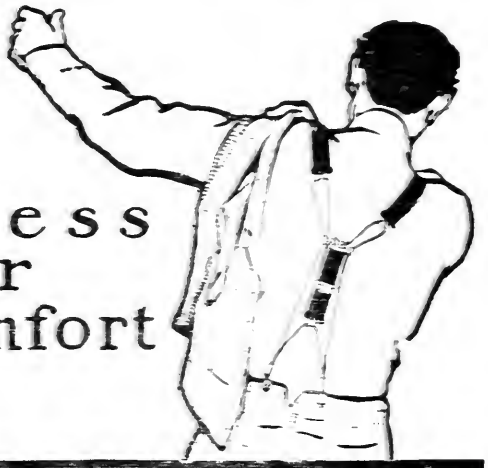

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For the holidays
are in single pair boxes.
Nice presents.
Fifty cents and a dollar.
Ask at favorite shop.

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C. A. Edgarton Mfg. Co.
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Presidents play any parts, in pre-arranging, instruments. Ask your dealer.

For Sale or Exchange: Lefever hammerless, 12 gauge 3 inch Damascus, full choke 3 grands, 12 inch stock, 3 inch drop, in good condition, price $35. Will exchange for second hand Smith, Remington or Calligraph Typewriter in good condition, for a sporting rifle of equal value. Savage or Remington preferred, or for useful merchandise.

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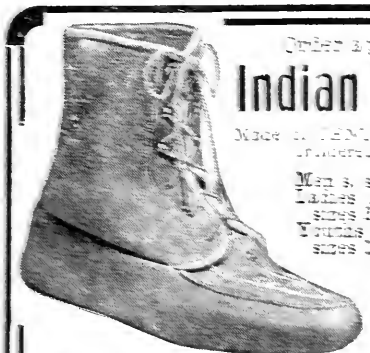

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Made in TAN, ONE WOOSER DE and [illegible] with [illegible] Side Lacings.

Men's, sizes 7 to 11	$2.75
Ladies and Boys sizes 1 to 6	2.25
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Sent prepaid on receipt of price. Send for catalogue. Money back if not satisfactory.

We also supply handsome MOCCASIN SLIPPERS some material, sizes and prices as above. They are unsurpassable and the most comfortable house foot coverings imaginable.

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Made only by **HENRY C. SQUIRES & SON**
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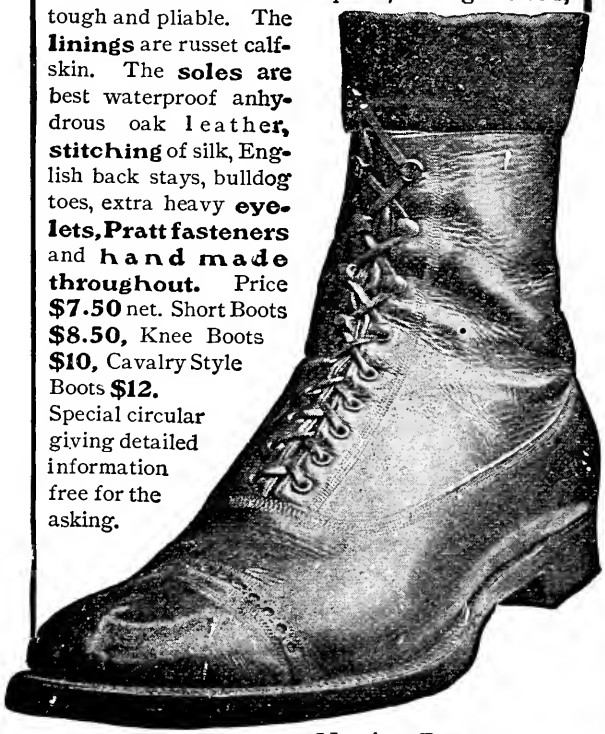
The **leather** is waterproof, fine grained, tough and pliable. The **linings** are russet calfskin. The **soles are** best waterproof anhydrous oak leather, **stitching** of silk, English back stays, bulldog toes, extra heavy **eyelets, Pratt fasteners** and **hand made throughout.** Price **$7.50** net. Short Boots **$8.50,** Knee Boots **$10,** Cavalry Style Boots **$12.** Special circular giving detailed information free for the asking.



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I have on file measurements of all who bought Boots and Shoes of the W. Fred Quimby Co., of New York for the past 20 years, and I make the same grade of sportsmen's footwear as they made. I was superintendent of the shoe department of that firm and bought the right to make these boots and shoes. Get a pair NOW. They will last years and are the cheapest in the end. I refer by permission to the Editor of RECREATION.

Hunting Boots, Shoes and Moccasins

All Work Guaranteed

Measurement blanks and prices on application. Mention RECREATION.

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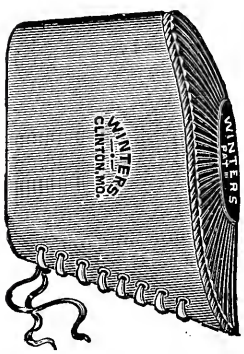

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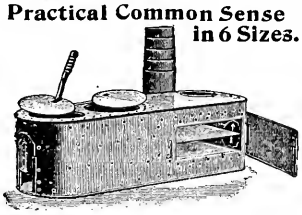

Either with or without oven. The lightest, strongest, most compact, practical stove made. Cast combination sheet steel top, smooth outside, heavy lining in fire box and around oven, holds its shape, telescopic pipe carried inside the stove. Burns larger wood and keeps fire longer than any other. Used by over 9,000 campers and only one stove returned.

For catalogue giving full particulars, mention RECREATION and address,

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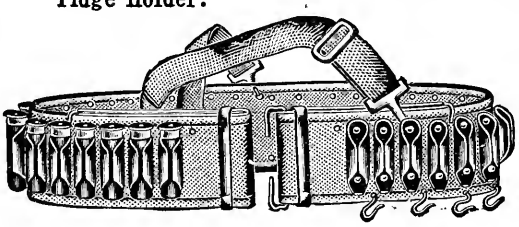
The best of all. Delivered by mail to any address on receipt of $2. Send 10 cents in silver or stamps for Sample Cartridge Holder.



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A WILKESBARRE GUN

($125 Grade, Entirely New)

FINE DAMASCUS BARRELS

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I have only one of these guns, and so the first man who sends me the $75 will get it. Others who may try for the gun and be too late can get for their clubs a Syracuse, Ithaca, Parker or Remington gun, of as high grade as I can afford to furnish.

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Go on like a glove and fit all over.

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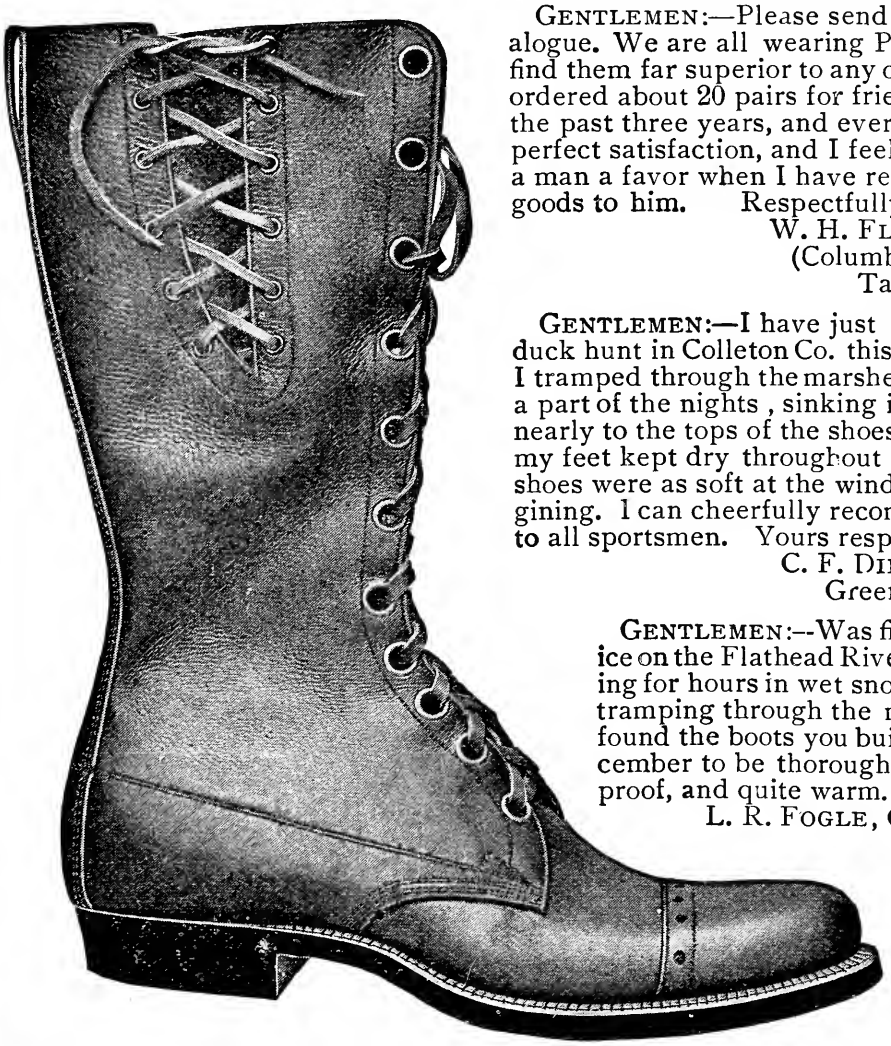
Putman Boots are in use in nearly every civilized country in the World. They are Genuine Hand Sewed, Water proof, Made to measure, Delivery charges prepaid, and cost no more than others. Send for Catalogue of over **30 different styles** of boots. Also **Indian Tanned Moosehide Moccasins.** We send with catalogue Order Blanks showing how to measure your foot.



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Tatham, Ga.

GENTLEMEN:—I have just returned from a duck hunt in Colleton Co. this state, and though I tramped through the marshes for six days and a part of the nights, sinking in mud and water nearly to the tops of the shoes I got from you, my feet kept dry throughout the trip and the shoes were as soft at the wind-up as at the begining. I can cheerfully recommend your shoes to all sportsmen. Yours respectfully,

C. F. DILL,
Greenville, S. C.

GENTLEMEN:—Was fishing through the ice on the Flathead River this week standing for hours in wet snow and slush and tramping through the mountains, and I found the boots you built for me in December to be thoroughly water and snow proof, and quite warm. Yours truly.

L. R. FOGLE, Great falls, Mont.

Illustration shows No. 900, 14 inch Boot, made to measure and delivered in U. S. for

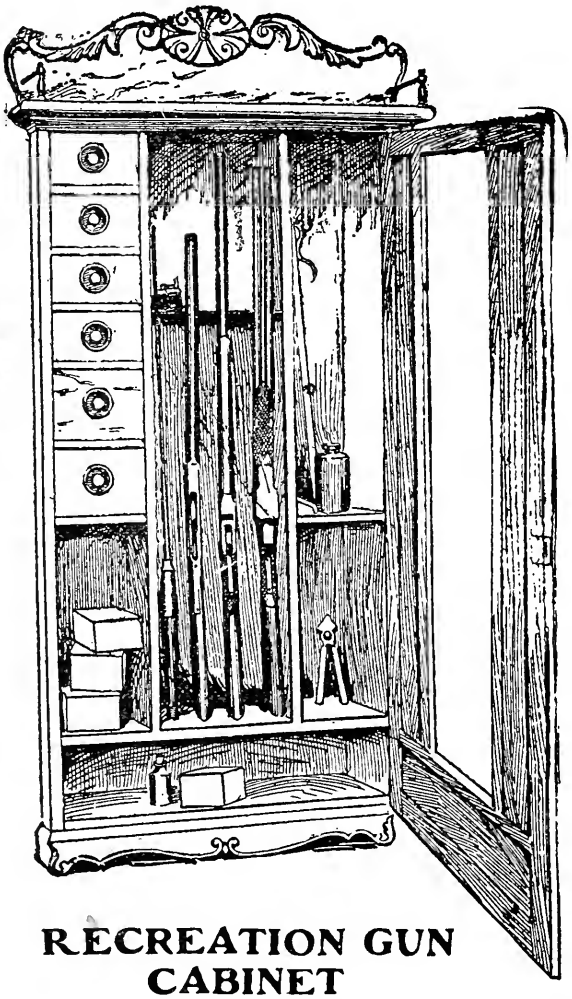
$7.50.

H. J. PUTMAN & CO., 36 HENNEPIN AVE. **Minneapolis. Minn.**

X MAS.

$10.00

For this Gun Cabinet For December Only



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For December Only This Gun Cabinet

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RECREATION GUN CABINET

This Cabinet is, without a doubt the best value ever offered for the price, and the large number of sportsmen who have been wishing for a handsome, well-made Gun Cabinet, at a moderate price, will find it their ideal. Made of Oak, Antique finish.

Height, 5 ft. 10 in. Width, 28 in. Depth, 12 in. Padded rack for four guns, and room for fishing rods. Six good tight drawers for ammunition, &c. Unsightly duffle in the side spaces is hidden from view when door is closed, leaving unobstructed views of Guns.

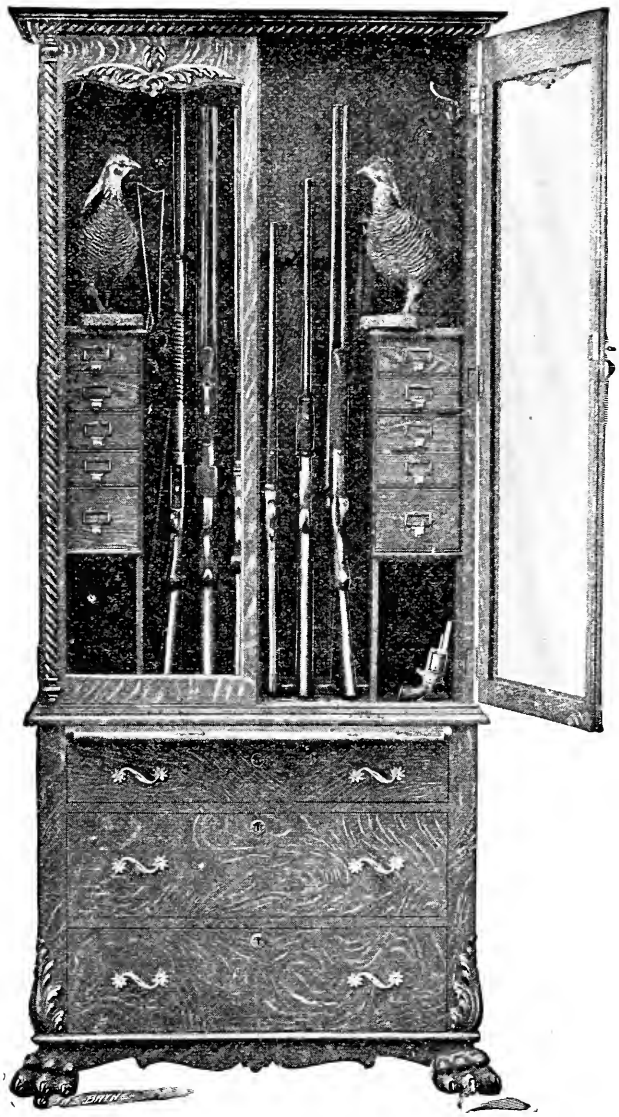
Crated for Shipment from Factory - - $15.00

SHOOTING JACKET, $3.00

Guaranteed all wool, seamless, elastic, close fitting, but not binding, comfortable and convenient. Designed especially for duck shooters, trap shooters, etc., but suitable for all outdoor purposes. Must be seen to be appreciated. Made only in two colors—dead grass and Oxford gray.

Send us your address for one of our Gun Catalogs. Mention RECREATION.

THE H. H. KIFFE CO., - - 523 Broadway, New York



SPORTSMAN'S CABINET, No. 20.
Polished Golden Oak or Imitation Mahogany.

An Ideal Christmas Present

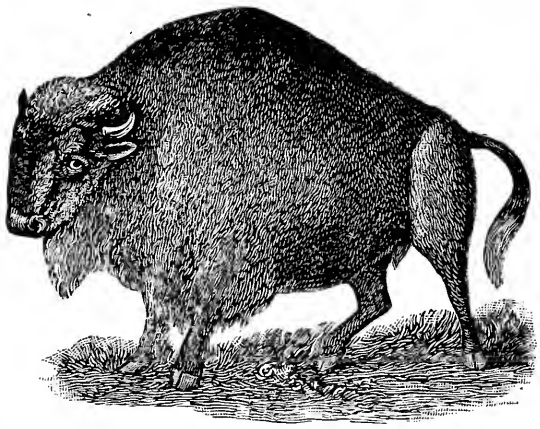
Send Stamp for Catalogue and Prices.
Mention RECREATION.

WEST END FURNITURE COMPANY,
Sole Manufacturers and Patentees,
WILLIAMSPORT, PA.

RELICS OF A DISAPPEARING RACE

Buffalo Skulls

WITH POLISHED OR UNPOLISHED HORNS



Also polished or unpolished horns in pairs or single. Polished horns tipped with incandescent electric lights; polished hunting horns; mirrors hung in polished horns, etc. These are decided novelties and are in great demand for sportsmen's dens, offices, club-rooms, halls, etc. Send for illustrated catalog. Mention RECREATION.

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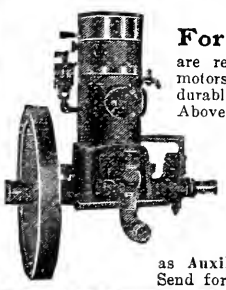
Fay & Bowen Motors



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are revelations to those who have used motors of other makes. They are safe, durable, economical, and easy to operate. Above all they start when started. We use no crank or handle. The Ignitor is absolutely unique and is the only perfect and satisfactory one in use, acting always positively and instantly.

We build handsome launches complete, or furnish motors separate, ready for installation. Motors as Auxiliaries for sailing craft a specialty. Send for catalogue.

Fay & Bowen, 28 Mill St., Auburn, N.Y

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Sent Free: Ten varieties of Mexican postage and revenue stamps for one annual subscription to RECREATION sent in through me. Stamp collectors should not miss this chance to increase their collection of Mexican stamps. Albert M. Penn, Laredo, Tex.

Wanted. — A finely bred dachshund. Address S. G., care RECREATION.

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MERCHANTS & MINERS TRANS. COMPANY STEAMSHIP LINES

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It tells all about it and is beautifully illustrated. 175 pages. SEND 10c. FOR POSTAGE.

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Jason E. Nichols, Judge. G. Louie Peck, Register.
PROBATE COURT, INGHAM COUNTY,
LANSING OFFICE

Lansing, Mich., February 12, 1902.

The King Folding Canvas Boat Co.,
Kalamazoo. Mich.

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SEND 6c. FOR CATALOGUE. 50 ENGRAVINGS

King Folding Canvas Boat Co.

KALAMAZOO, MICH.

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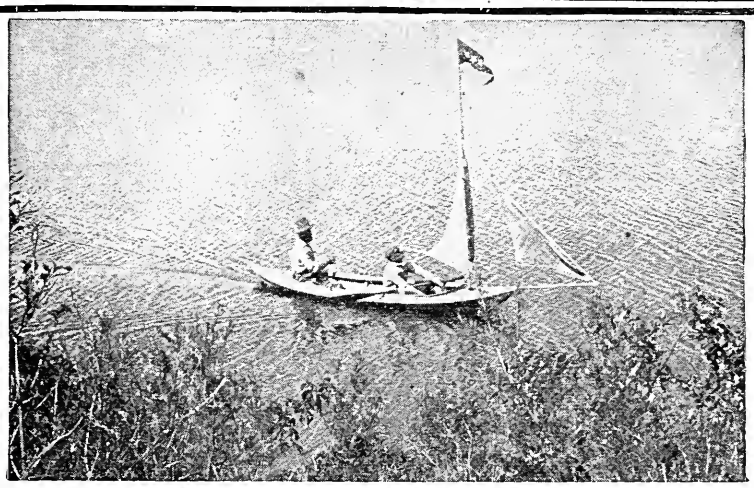

Recreation with the aid of a Mullins' Metal Boat or Canoe is as near perfect as you can get it.

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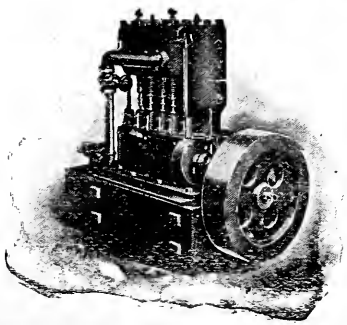
Gasoline Engines and Launches



MARINE and STATIONARY ENGINES

of both two and four cycle type in stock.

Special discount on launches ordered during winter months for Spring delivery

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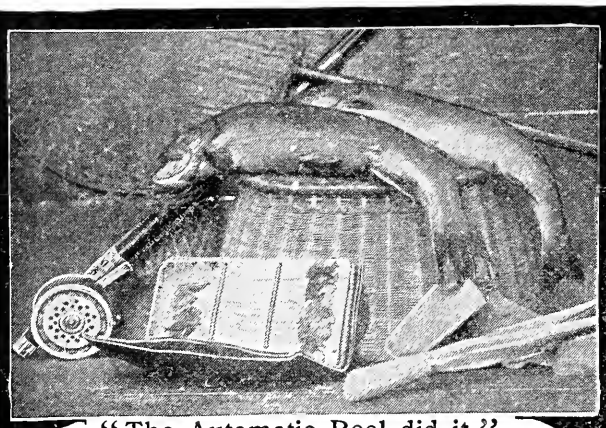

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"Little finger does it!"

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"A delight from beginning to end."

A WINTER ON THE PACIFIC COAST.

For an eastern person there is nothing quite so enjoyable as a winter on the Pacific Coast, that country being delightful during the winter months from Southern California to Seattle. It is reached best from the east by the

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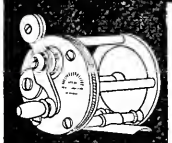
THE "MILAM" "The Frankfort Kentucky Reel"



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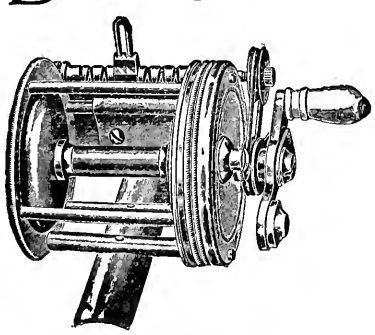

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A Bristol Steel Rod

No matter how many rods a man or a boy may have, he always wants another. Give him either a fly or a bait casting rod and you will touch him in a soft spot.

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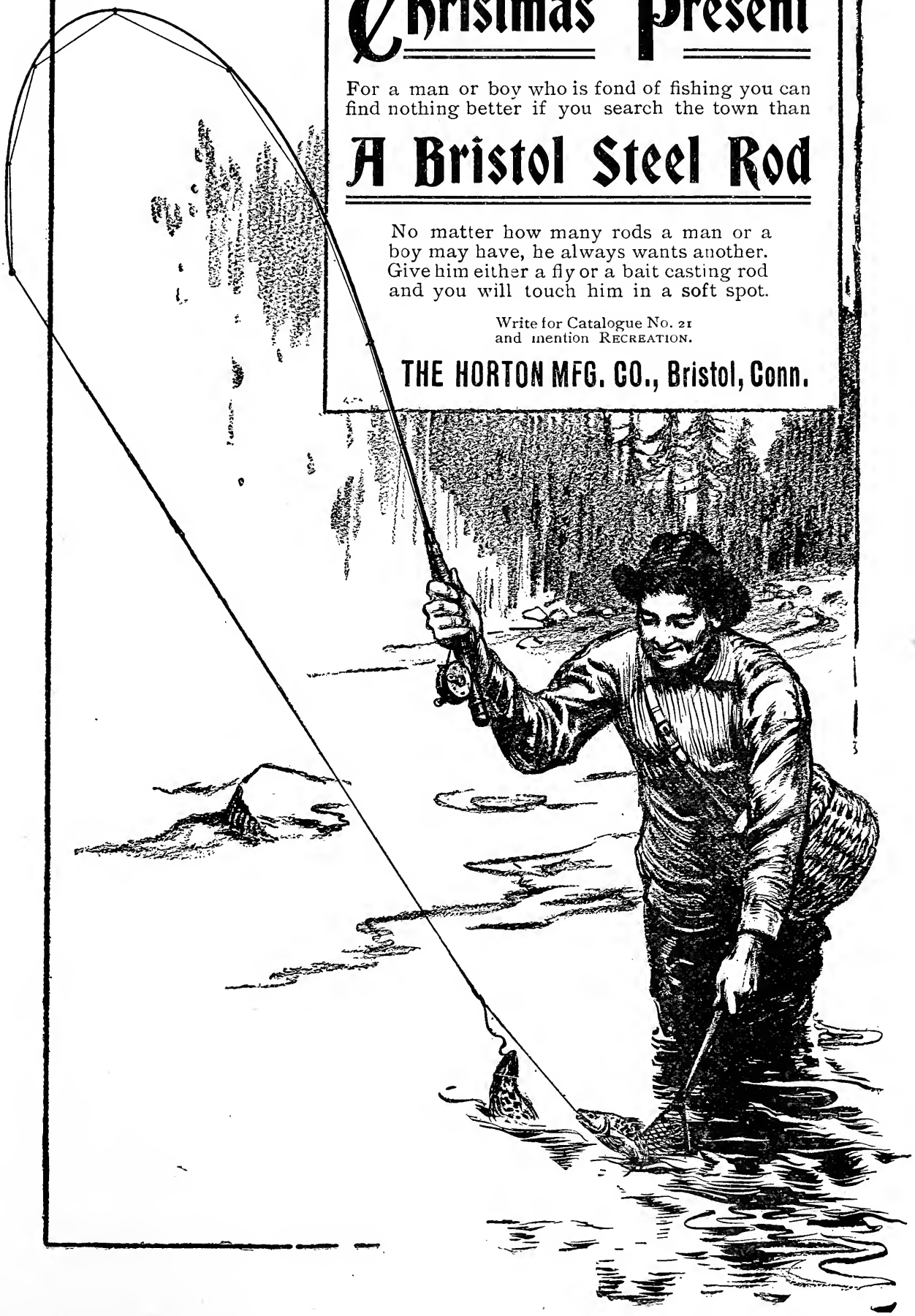

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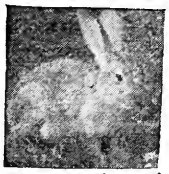

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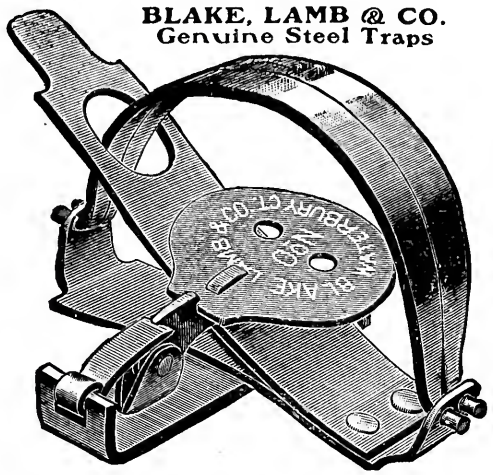

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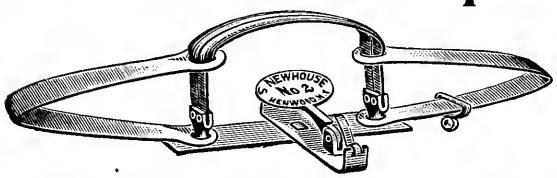

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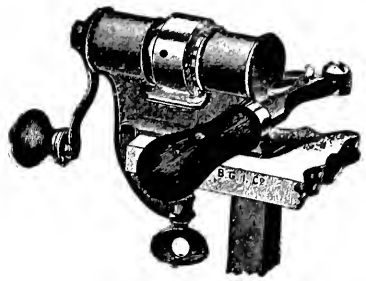

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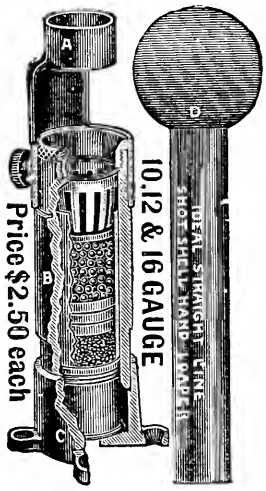

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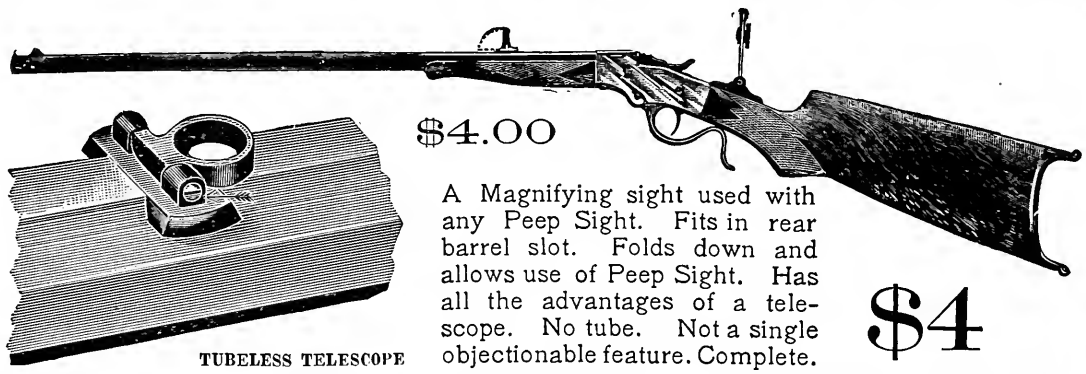

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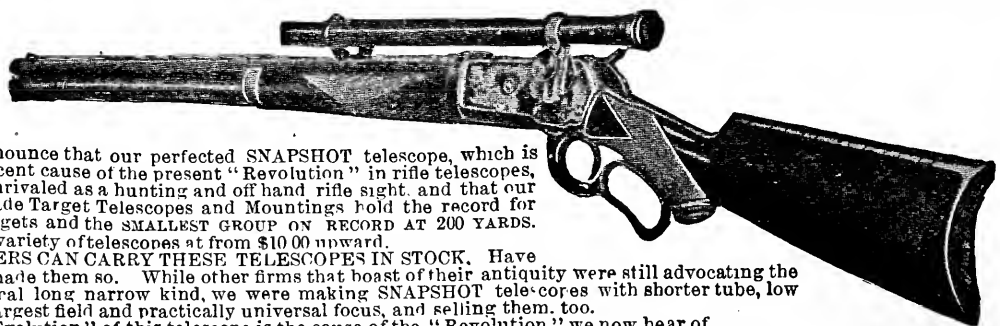

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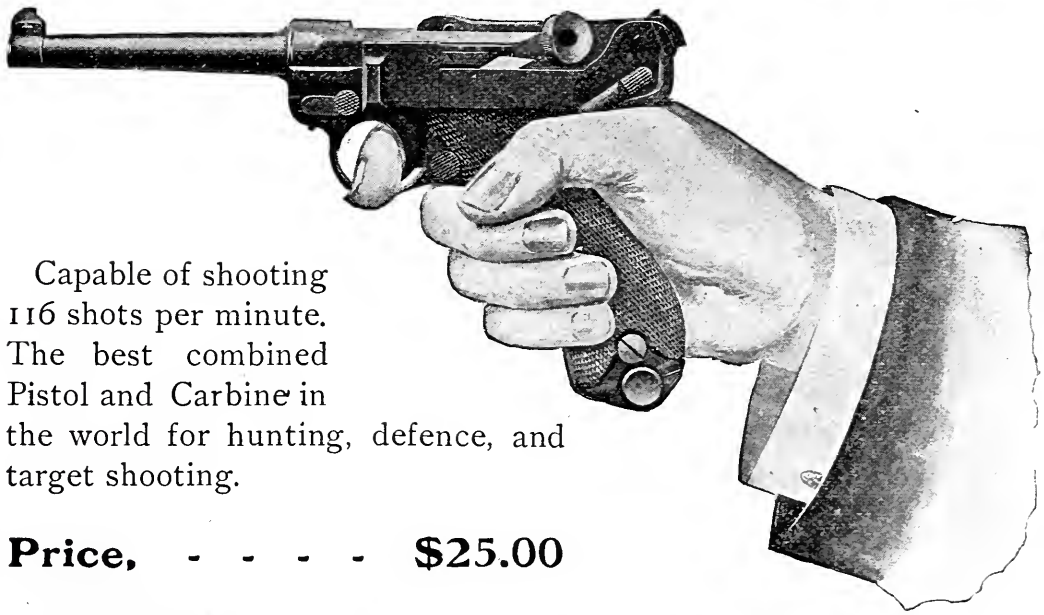

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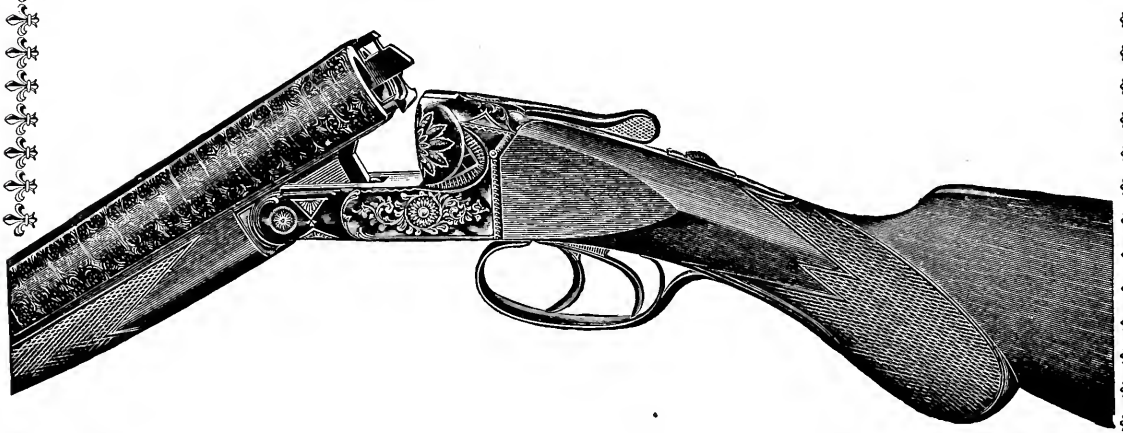

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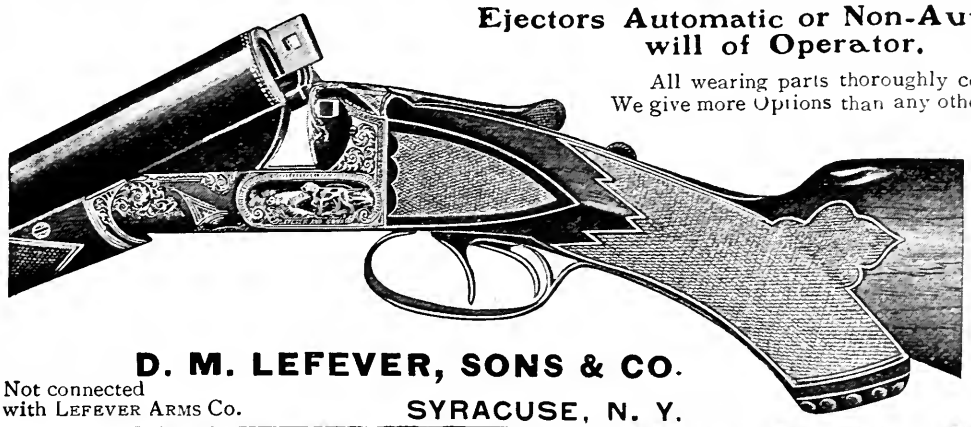

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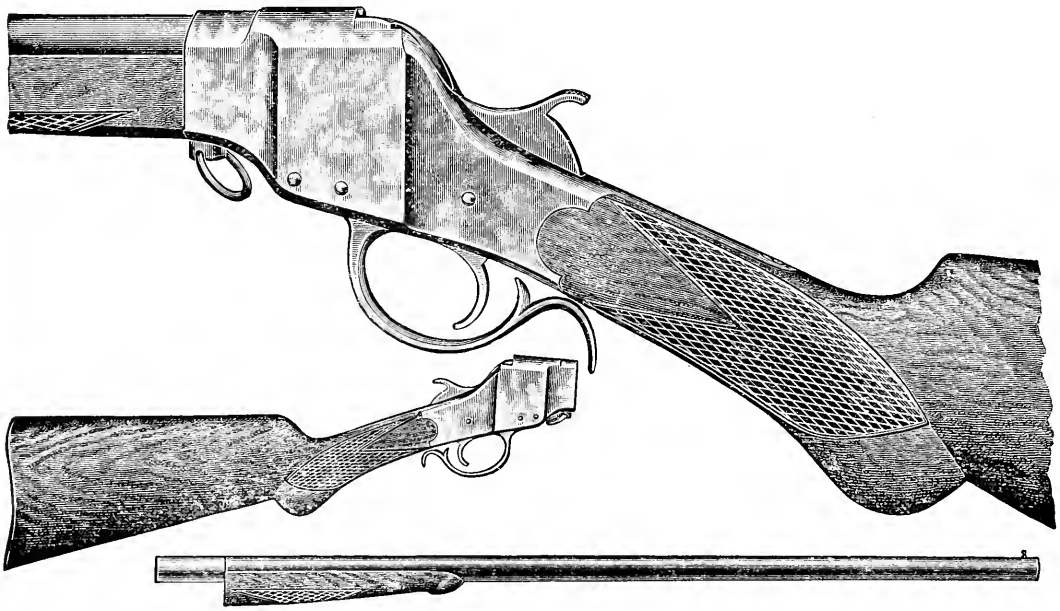

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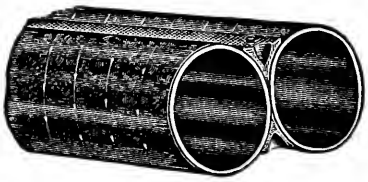

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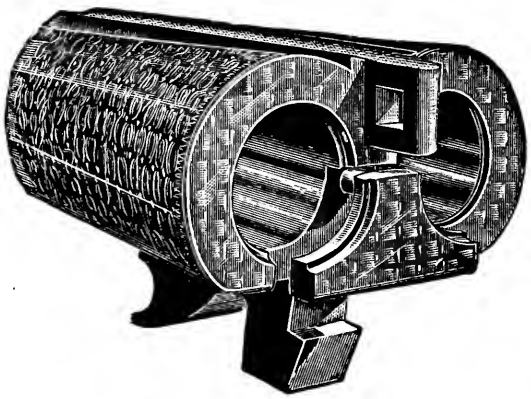

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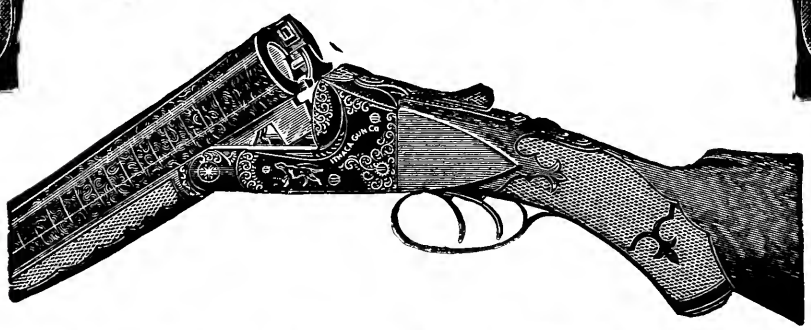

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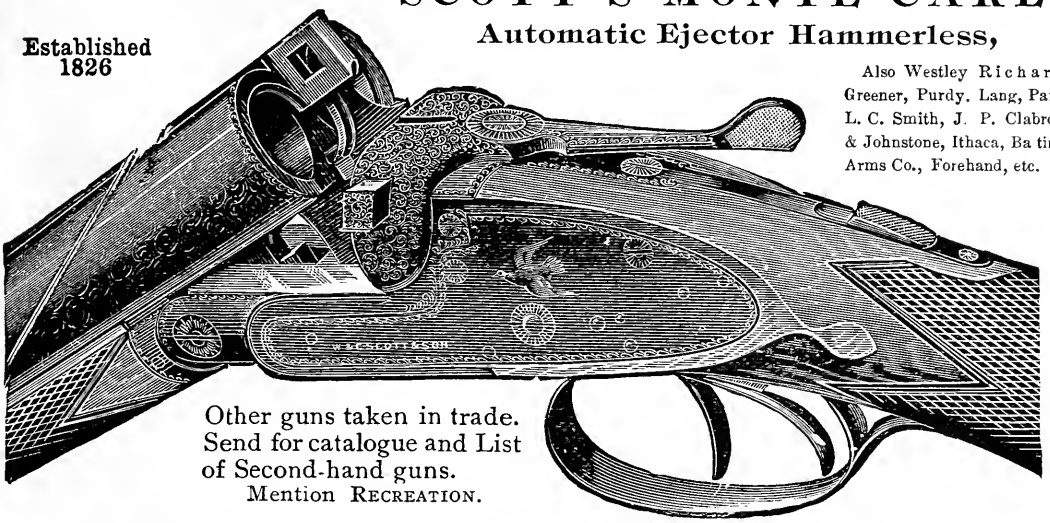

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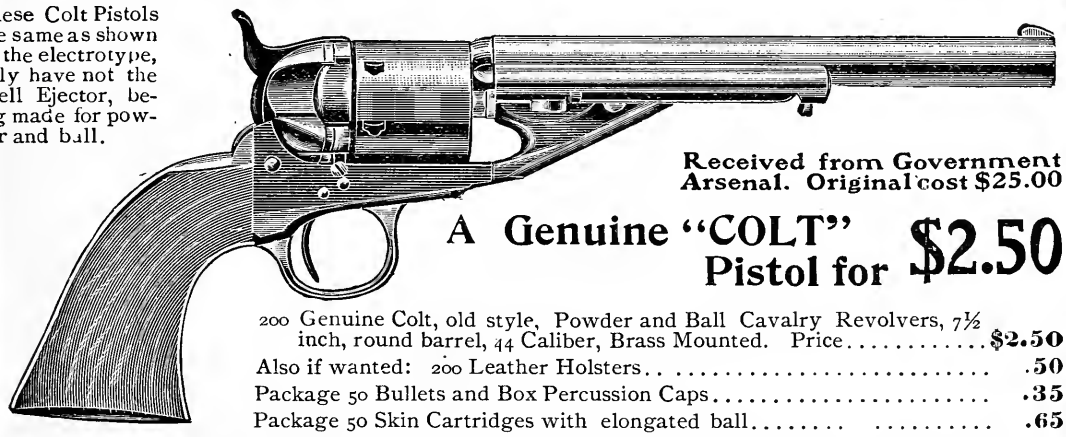

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These are in nice second-hand condition, almost as good as new. At the time of our Civil War were the most famous weapons of all. Are valuable, not only as relics of our Civil War, but as accurate shooting pistols for target or defence, and all right for use to-day. Orders accompanied by cash will be filled, and if goods are not satisfactory on receipt, they can be returned and money refunded, less cost of expressage.

Also a few left of the **Smith & Wesson 45 Caliber Metallic Cartridge Pistols,** in fine nickel plated finish..... **$9.00**

Also 100 genuine **"Remington" Breech Loading Rifles,** 32 inch barrels in fine brown finish, weight 8¼ pounds, have graduated Sights up to 700 yards, take central fire 50 caliber reloadable cartridge. Price..... **$5.00**
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The above Rifles are good accurate shooting serviceable arms, and bargains to anyone to keep on a farm, or for target or hunting purposes.

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Also to reduce stock. 100 new latest model genuine **"Forehand" Single Barrel Shot Guns,** breechloading and having the Automatic Shell Ejector, 30 inch barrels, 12 bore. These are one of the best of all the American Single barrel, good shooters and serviceable..... **$6.00**

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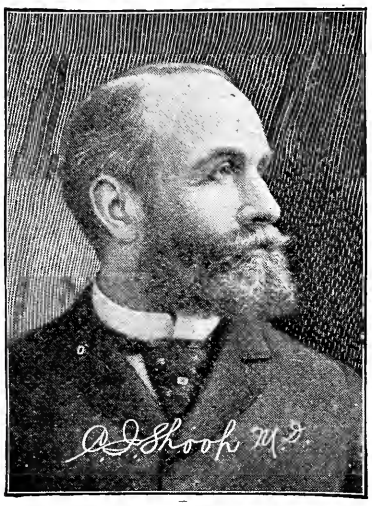
That is all—just a postal—just the cost of a penny.
Tell me to-day the name of some sick one.**



Tell Me The Book To Send

Then I will do this: I will mail that sick one an order—good at any drug store—for six bottles of Dr. Shoop's Restorative. He may take it a month to prove what it can do. If it succeeds, the cost is $5.50. If it fails, *I will pay the druggist myself.* And the sick one's mere word shall decide it.

It is but a trifle I ask of you—just a minute's time—just a penny postal. And I ask it to aid a sick friend.

It is a remarkable thing that I do in return—something that nobody else ever offered. And I do it for a stranger.

Won't you do that little—and to-day—if I will do the rest?

You ask what good it will do.

That month's test will tell. It is true that my Restorative may fail. There is sometimes a cause—like cancer—which medicine cannot cure. But the very fact of my offer must prove that failures are rare, for if they were common the offer would ruin me.

In the past twelve years I have supplied my Restorative to hundreds of thousands on just those terms, and 39 out of each 40 have paid gladly, because they got well. I have found that the cured ones are fair—and not a penny is wanted from the rest.

A sick one who neglects such an offer is unkind to himself, for success means health, and 39 out of each 40 secure it. Failure means nothing lost.

My boundless faith in this remedy is born of a lifetime's experience. I have tested it in hundreds of the most difficult cases that physicians ever meet. I have watched it succeed—countless times—when the best of other treatments failed.

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My success comes from strengthening the *inside* nerves. I bring back the nerve power which alone operates all the vital organs.

I don't doctor the organs, for the best results of that method are only temporary. I give those weak organs strength to do their duty by restoring the only power that makes them act.

There is no other way. You cannot restore a weak engine by doctoring the machine. You must give it more steam—and *nside* nerve power is the steam of the body.

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Simply state which book you want, and address Dr. Shoop, Box 214, Racine, Wis.

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Mild cases, not chronic, are often cured by one or two bottles. At all druggists.

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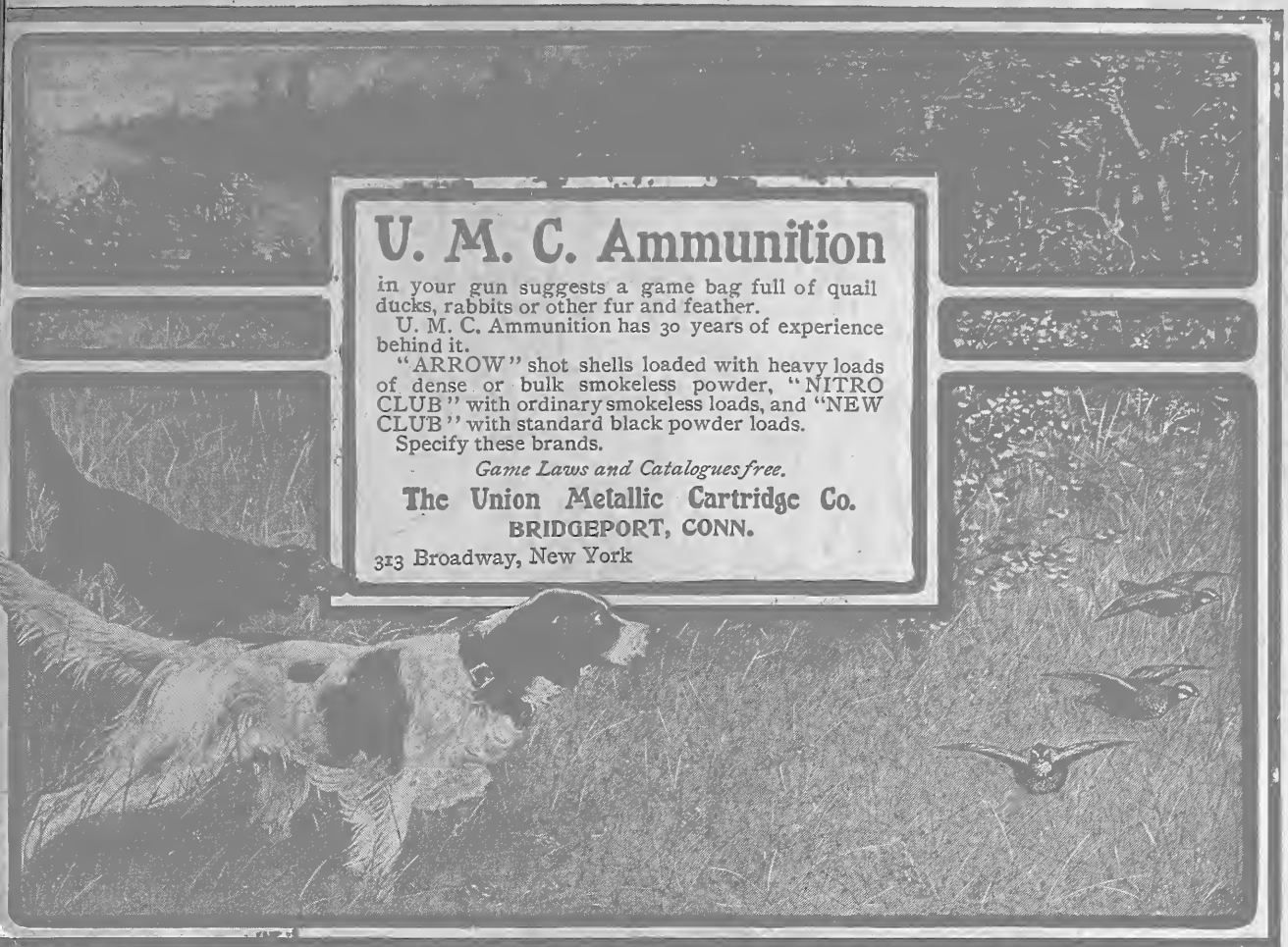

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"ARROW" shot shells loaded with heavy loads of dense or bulk smokeless powder, "NITRO CLUB" with ordinary smokeless loads, and "NEW CLUB" with standard black powder loads.

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Greaseless Bullet Cartridges

THE severest kind of a test of the accuracy, cleanliness and general desirability of Winchester .22 Caliber Smokeless Powder Cartridges loaded with Winchester Greaseless Bullets was made in San Antonio, Texas, September 20th, by Adolph Toepperwein. Mr. Toepperwein, who held the World's Record for shooting flying targets with a rifle, having made a score of 979 hits, out of 1,000 shots, undertook to better this record. He succeeded, making the remarkable score of 986 hits out of 1,000 shots, the targets being 2½ inch clay discs thrown into the air by an assistant. In performing this feat, Mr. Toepperwein used two Winchester Model 1890 Repeating Rifles and .22 Caliber Cartridges of Winchester make loaded with Smokeless Powder and Winchester Greaseless Bullets. He shot 100 preliminary shots and 1,000 for the record without cleaning or cooling his guns, and at the conclusion of the test they were practically as clean as after firing the initial shots. Mr. Toepperwein attributes his success in improving his previous record to the fact that the new Winchester make of Greaseless Bullet Cartridges are so much cleaner than the lubricated bullet cartridges, which he used before.

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